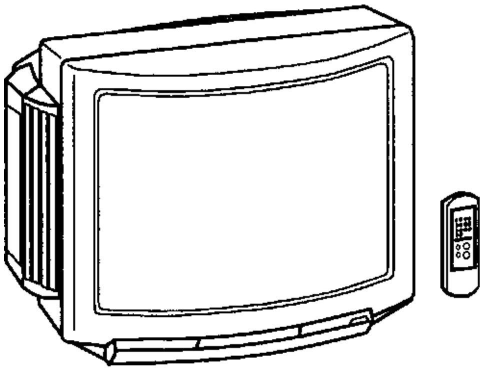
KV-A3411A
RM-816

MANUALE DI SERVIZIO

Modello Italiano

Numero Chassis. SCC-E02B-A



DE-2 CHASSIS

MODELLI DELLA STESSA SERIE	
KV-A3411D	

CARATTERISTICHE TECNICHE

Sistema televisivo e colore	PAL B/G SECAM Est (ex Germania Orientale) ingresso Video NTSC 3.58/4.43.
Gamma dei canali	Vedi tabella «CANALI RICEVIBILI E LORO VISUALIZZAZIONE«
Frequenza intermedia	Mono Standard Fi-Video: 38.9MHz Fi-Video: 33.4MHz Multi-Standard/Norma: B, G Fi-Video: 38.9 MHz FI-Audio 1:33.4MHz Fi-Audio II: 33.16MHz
Tubo catodico a colori	BLACK TRINITRON Circa 86cm (34") (circa 80cm in diagonale) deflessione 110°
Ingressi/Uscite	
Posteriori	
Q_ Connettore 21 -pin	EURO TV (Standard CENELEC) -Ingresso audio/video -Ingresso RGB -Uscita audio/video negnali TV
Q» 2/13- Connettore 21-pin	EURO TV -Ingresso audio/video -Ingresso S-video -Uscita audio/video (selezionabile)
G» Uscita audio	-Phono RCA
Uscita altoparlanti	-DIN 2-pin

Anteriori	
•B Ingresso video	-Phono RCA
-© Ingresso audio (LVR)	-Phono RCA
-Sì Ingresso S-Video input	-DIN4-pin
Connettore per cuffia-mini jack stereo	
Potenza amplificatore audio	30W+30W (potenza musicale)
Consumo	135Wh
Dimensioni LxAxP	880x664x580mm ca.
Peso totale	73Kg ca.
Accessori in dotazione	Telecomando RM-816 (1), batterie (designazione IEC R6) (2).
Altre caratteristiche	Filtro digitale video incorporato

TV A COLORI TRINITRON®

MICROFILM

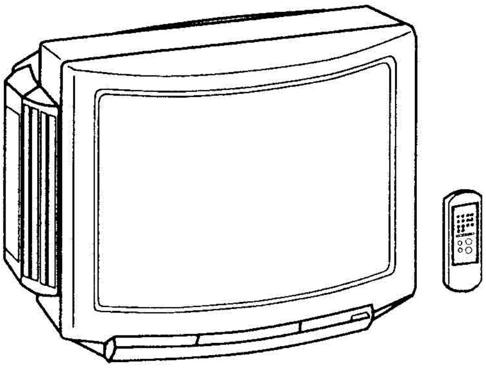
SONY®

KV-A3411D
RM-816

SERVICE MANUAL

AEP Model

Chassis No. SCC-D93B-A



DE-2 CHASSIS

MODELS OF THE SAME SERIES	
KV-A3411D	

Specifications

		KV-A3411D	
Television/colour system		PAL B/G, SECAM (East), NTSC 3.58/4.43 (Video-in)	
Channel coverage		See "Receivable channels and channel display".	
Picture tube		BLACK TRINITRON approx. 86 cm (34 inches) (approx. 80 cm picture measured diagonally) 110° deflection	
Terminals	REAR	21-pin Euro connector (CENELEC standard)	-inputs for audio and video signals -inputs for RGB -outputs of TV video and audio signals
		2/ 21-pin EURO connector	-inputs for audio and video signals -inputs for S-video -outputs for audio and video signals (selectable)
		Audio output (variable)	-phono jacks
		External speaker terminals: 21-pin DIN	
	FRONT	Video input - phono jack	
		Audio inputs (L, R) - phono jacks	
		S-Video input - 4-pin DIN	
		Headphone jack: stereo minijack	
Sound output		30W + 30W (music power with 4Ω speakers)	
Power Consumption		139 Wh	
Dimensions (W x H x D)		approx. 880 x 664 x 580 mm	
Weight		approx. 78 kg	
Supplied accessories		RM-816 Remote Commander (1), IEC designation R6 batteries (2)	
Other features		Digital comb filter	

Receivable Channels and Channel Displays

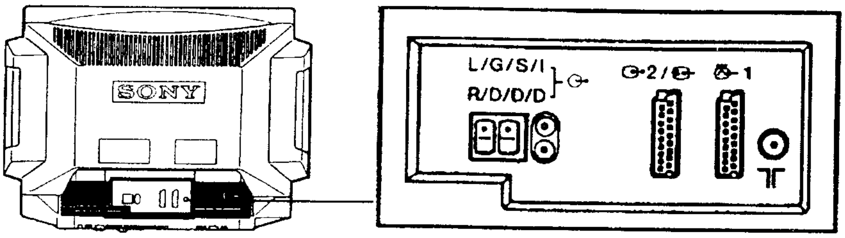
	Receivable channels	Indication displayed on the screen
PAL B/G	E2	C02
	3	C03
	4	C04
	:	:
	12	C12
	21	C21
	:	:
	69	C69
CABLE TV (1)	S1	S01
	2	S02
	:	:
	41	S41
CABLE TV (2)	S01	S42
	:	:
	S05	S46
	M1	S01
	:	:
	M10	S10
	U1	S11
	:	:
	U10	S20
ITALIA	A	C13
	B	C14
	C	C15
	D	C16
	E	C17
	F	C18
	G	C19
	H	C20
	H1	C11
	H2	C12

TRINITRON® COLOR TV

SONY®

MICROFILM

21 pin connector (⇥-1, ⇥-2)



Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level 0.5Vrms Output impedance less than 1kohm*
2	○	○	Audio input B (right)	Standard level 0.5Vrms Input impedance More than 10kohms*
3	○	○	Audio output A (left)	Standard level 0.5Vrms Output impedance less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level 0.5Vrms Input impedance More than 10kohms*
7	○	●	Blue input	0.7V±3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5–12V) Part mode Low state (0–2V) TV mode Input impedance More than 10kohms Input capacitance Less than 2nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal 0.7V±3dB 75ohms, positive
12	○	○	Open	
13	○	○	Ground(red)	
14	○	○	Ground (blanking)	
15	○	—	Red input	0.7V±3dB, 75ohms, positive
	—	○	(S signal) croma input	0.3V±3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1–3V) Low state (0–0.4V) Input impedance 75ohmes
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V±3dB, 75ohms, positive Sync 0.3V(−3, +10dB)
20	○	—	Video input	1V±3dB, 75ohms, positive Sync 0.3V(−3, +10dB)
	—	○	Video Input/Y (S signal)	1V±3dB, 75ohms, positive Sync 0.3V(−3, +10dB)
21	○	○	Common ground (plug, sheld)	

○ connected ● unconnected (open) * At 20 Hz–20kHz

4 pin connector (⇥)

Pin No	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V±3dB 75ohm, positive Sync 0.3V$^{-3}_{+10}$ dB
4	C (S signal) input	0.3V±3dB 75ohm positive

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
GENERAL

1-1. INTRODUCTION AND PREPARATION

Thank you for purchasing this TV from Sony. You now own a high-quality TV with many special features.

Special Features of This TV

High quality picture
- Black Trinitron picture tube provides a picture with high resolution and high contrast.
- Digital comb filter provides a superior picture quality.

Wide capability of colour system and tuning functions
- Colour systems: PAL, SECAM (East) and VIDEO-IN NTSC 4.43 and 3.58.
- 60 programme positions for presetting VHF, UHF, and cable channels.
- Frequency synthesizer tuning system enables direct channel presetting.

Full Spectrum Sound System
- 2 x 30 W music power.

Other special features
- Teletext decoder.
- Audio/Video input and S-video terminals at the front of the TV.
- Two 21-pin connectors (second 21-pin with S-video input) for the direct connection of video equipment.

Safety Information

All TV's operate on extremely high voltages. To prevent fire or electric shock please follow the safety procedures below. For your protection, refer all servicing to qualified personnel only.

For general safety:
- Do not expose the TV to rain or moisture.
- Do not open the rear cover.

For safe installation:
- Do not block the ventilation openings.
- Do not install the TV in hot, humid, or excessively dusty places.
- Do not install the TV where it may be exposed to mechanical vibrations.

For safe operations:
- Do not operate the TV on anything but 220 - 240 V AC.
- Do not operate the TV if any liquid or solid object falls on it – have it checked immediately.
- Do not keep the set plugged in if you are not going to use it for several days.
- Do not pull on the power cord to disconnect the TV. Pull it out by the plug.

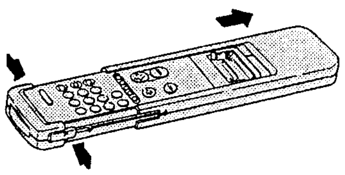
How to connect the aerial to this TV

Connect your aerial (using 75-ohm coaxial cable and IEC connectors, both not supplied) to the ⫟ socket on the rear of the TV.

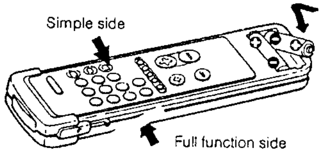
How to insert batteries into the Remote Commander

You have to insert the two supplied R6 batteries into the Remote Commander before you can use it to operate the TV.

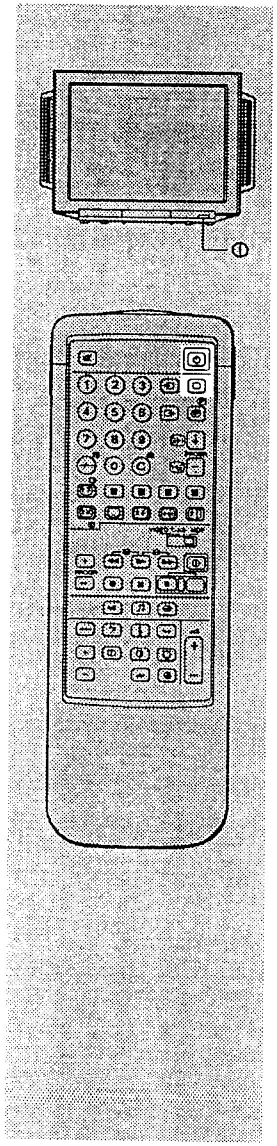
1 Remove the outside cover of the Remote Commander.



2 Insert both supplied batteries on the simple side of the commander, so that the + and the – polarities match those indicated.



1-2. SWITCHING ON/OFF



After you have completed the basic preparation your TV is ready to be connected to the mains power supply (220/240 V AC, 50 Hz).

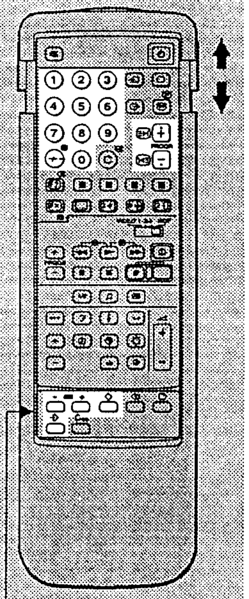
How to turn the TV on

Action	Result
1 Press Ⓘ on the TV	The TV will turn on. **Note:** If the screen remains blank, the TV may be in the standby mode. Press ○ to switch it on.

How to turn the TV off

A Temporarily	
Press ⏻ to enter standby mode.	The TV will be in standby. To return to the TV mode press ○.
B Completely	
Press Ⓘ on the TV.	The TV will turn off.

1-3. PRESETTING



Note: These bottons should be used in preset mode only.

After you have installed this TV you need to preset TV channels.

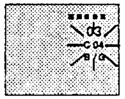
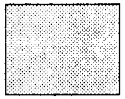
TV stations broadcast their channels at certain frequencies. You must preset these channels to programme numbers on this TV before you can watch the TV programmes.

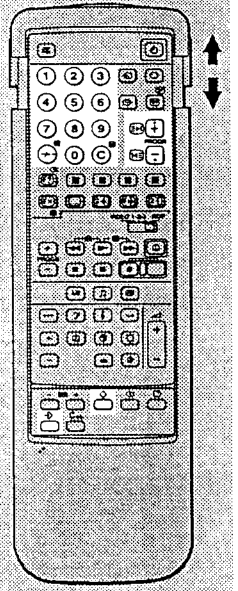
There are 60 spaces for storing these channels.

Slide open the full function side of the remote commander to reveal preset buttons.

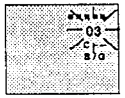
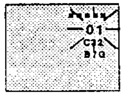
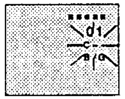
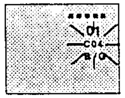
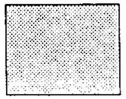
If you are unfamiliar with the cannel numbers of the stations you wish to preset, use "How to preset channels automatically". If you are familiar with the channel numbers refer to "How to preset TV channels directly".

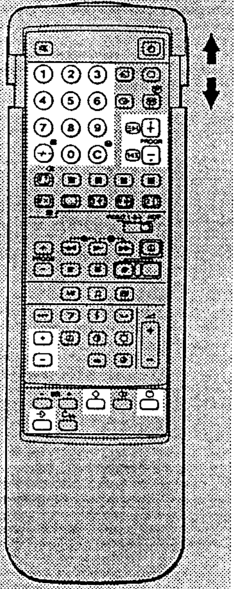
How to preset channels automatically

Action	Result
1 Press ⇨ to enter the preset mode. ⇨	The programme number will start flashing.
2 Press PROGR + or – or the number buttons to select the programme number to which you want to preset channels. + PROGR – ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ -/-- ⓪ **Note:** To select a double-digit number, use the -/-- button. For example, if you want to choose 23, press -/--, 2, and then 3.	The programm number changes.
3 Press ⊞ + or – once to search forward or backward for channels. – ⊞ +	 When a channel is tuned in, the search will stop. **Note:** If you want to skip a channel, press ⊞ + or ⊞ –.
4 Press ◇ if you want to store the channel which is tuned in. Press ⇨ to exit preset mode without storing. ◇	 The channel is now stored and you have returned to TV mode.
5 Repeat steps 1 to 4 to store the other channels.	



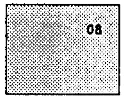
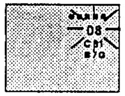
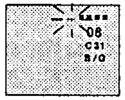
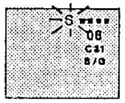
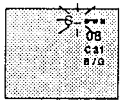
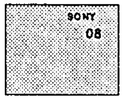
How to preset channels directly

Action	Result
1 Press ⇨ to enter the preset mode. ⇨	 The programme number will start flashing.
2 Press PROGR +/– or the number buttons to select the programme number on which you want to preset a channel. + PROGR – ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ -/-- ⓪ **Note:** To select a double-digit number, use the -/-- button. For example, if you want to choose 23, press -/--, 2, and then 3.	 The programme number changes.
3 Press C. If you want to select a cable channel, press C twice. Ⓒ	 The indication "C--" ("S--" for a cable channel) starts flashing on the display.
4 Select the channel number with two digits (e.g. 04) by pressing the number buttons. ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⓪ **Note:** Press the second number within 5 seconds after the first one, otherwise the operation will be cancelled.	 The channel number changes. **Note:** If you have made a mistake the letter "X" will apear. Repeat step 4 again.
5 Press ◇ to store the channel which is tuned in. Press ⇨ to exit the preset mode without storing. ◇	 The channel is now stored and you have returned to TV mode.
Repeat steps 1 to 5 to store the other cannels.	



How to Name a Station

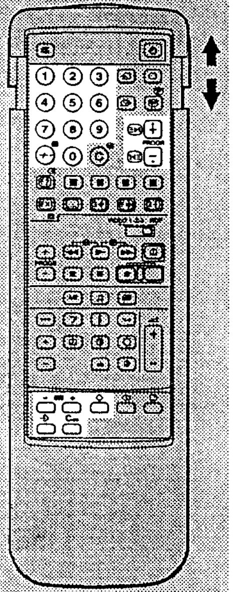
You can use up to five characters to "name" a channel or station (i.e. BBC 1).

Action	Result
1 Select a programme number you want to name by pressing the PROGR +/– or the number buttons.	 The selected programme number will appear.
2 Press ⇨.	 The programme number starts flashing.
3 Press ⊖.	 The first column of the station name indication will start flashing.
4 Press + or – to select a letter in the alphabet, a number, or a blank space.	 The letters of the alphabet, numbers and the space ("-") will appear sequentially.
5 Press ⊖.	 The first character is now set and the second column will start flashing.
6 Repeat steps 4 and 5 to set each letter.	
7 Press ◇.	 The channel is now stored and you have returned to TV mode.

How to tune in a channel temporarily

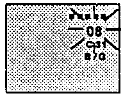
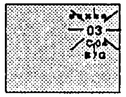
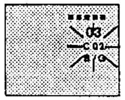
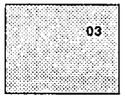
You can tune a channel in temporarily, if it has not been preset.

Action	Result
1 Press C. For cable channels, press C twice.	The indication "C" ("S" for cable channels) appears on the screen.
2 Select the channel number with two digits by pressing the number buttons (e.g. for channel 4, first press 0, then 4).	The channel is received, but it is not stored to any programme number.



How to Skip Programmes

Using the PROGR +/– buttons you can skip unused programme channel numbers. However, the skipped numbers may still be called up using the number buttons.

Action	Result
1 Press ⇨ to enter the preset mode.	 The programme number will start flashing.
2 Select the programme number that you want to skip by pressing PROGR +/– or the number buttons.	 The programme number changes.
3 Press Coo.	 The lowest channel number appears under the programme number.
4 Press ◇.	 The channel is now stored and you have returned to TV mode.
Repeat steps 1 to 4 to skip other programme numbers.	

How to Fine Tune Manually

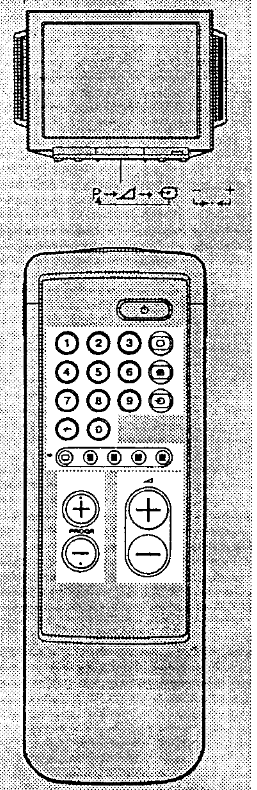
If the picture is distorted, you can fine tune the channel manually.

Action	Result
Press ⊞ + or – repeatedly until the picture looks normal.	The indication ← F → appears on the screen.
Press ⇨ to enter the preset mode.	The programme number starts flashing.
Press ◇.	The fine tuning is stored.

Note: The automatic fine tuning will function again when you preset the channel once more.

1-4. BASIC TV OPERATION

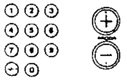
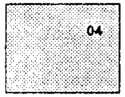
Note: Press (⊥) on door to open.



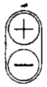
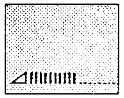
This section introduces you to the basic control functions which are available on the simple side of the remote commander.

How to Select Programmes

Before you can select programmes make sure that you have preset channels.

Action	Result
Press PROGR +/– or the number buttons. To select a double-digit number, use the –/– – button. For example, if you want to choose 23, press –/– –, 2, and then 3. 	 04 The selected programme is displayed.

How to Adjust the Volume

Action	Result
Press ◿ + or –. 	 The volume markers will appear.

How to Use Additional Functions

How to operate with the buttons on the TV

You can also select programmes and adjust the volume using the P→◿→⊕ and →•← +/– buttons on the front of the TV.

For operation, first press the P→◿→⊕ button repeatedly so that the P (for programme), ◿ (for volume) or ⊕ (for input) indication appears on the screen, and then adjust with the →•← +/– buttons.

How to view the teletext

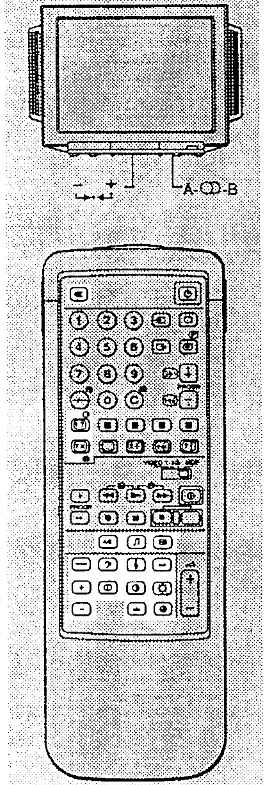
Press ⊜. To return to the TV mode, press ▢.

For details about the teletext operation.

How to view the video input picture

Press ⊕. To return to the TV mode, press ▢. For further details, refer to page 36.

1-5. ADVANCED TV OPERATION



This section shows you how to use convenient features and how to adjust the picture and sound to your taste.

Use the full-function side of the Remote Commander.

How to use on-screen display and special sound features

You can enjoy the following convenient features:

How to	Action	To resume normal picture sound
Display on-screen indications	Press ⊕.	Indications disappear after some seconds.
Display programme number	Press ⊕ twice.	Press ⊕ twice again.
Mute the sound	Press 🔇.	Press 🔇 again.
Select a language in bilingual programmes	Press A/B. The selected mode of the A-CD-B indicator on the TV lights up.	Press A/B again.
Set the sound to music listening position.	Press ♫.	Press ♫ again.
Use the space sound (special acoustic effect)	Press ⊖.	Press ⊖ again.
Request the time	Press ⊙.	Press ⊙ again.

How to adjust the picture and sound

Although the picture and sound have been adjusted at the factory, you might want to adjust them to your own taste. To do this, please follow the steps.

For picture adjustment

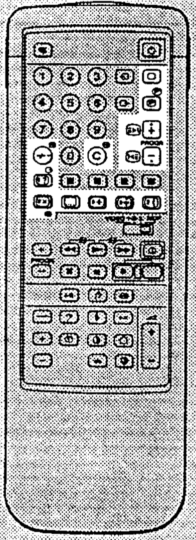
To Adjust:	Press:	Then:	Result (+ ⟷ –):
Picture:			
Colour intensity	◕	⊞ ⊟	More ⟷ Less
Picture Contrast	◑		More ⟷ Less
Brightness	☼		Bright ⟷ Dark
Hue (for NTSC only)	♔		Reddish ⟷ Greenish
Picture Sharpness	⦶		Sharp ⟷ Soft
Sound:			
Bass	𝄢	⊞ ⊟	More ⟷ Less
Treble	𝄞		More ⟷ Less
Balance	⋈		More Right ⟷ More Left

To reset the picture and sound to factory set levels press →•← .

On the set:
Press →•← +/– buttons simultaneously.

1-6. TELETEXT OPERATION

TV stations broadcast teletext programmes via the TV channels. To receive teletext programmes, use the buttons indicated in green on the full side of the Remote Commander.
With the simple side of the Remote Commander, only the basic operation is possible.



How to View the Teletext

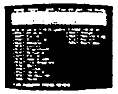
Action	Result
1 Select the channel which carries the teletext service you wish to view.	The channel changes on the screen.
2 Press ⊜. **Note on the TOP-TEXT** TOP-TEXT program is available only from some German stations. For information about the TOP-TEXT, please refer to the German language of this manual.	First, the "TOP-TEXT?" indication appears, then the teletext will appear. If the teletext signal is not broadcast, then **p100** is displayed.
3 Input three digits for the page number using the number buttons. **Note:** If you make a mistake, type in any three digits, then re-enter the correct page number.	The numbers are entered on the screen. The requested page will appear in a few seconds.

To return to the TV mode:
Press ○.

To change the teletext channels:
First press ○ to return to the TV mode, then repeat steps 1 to 3.

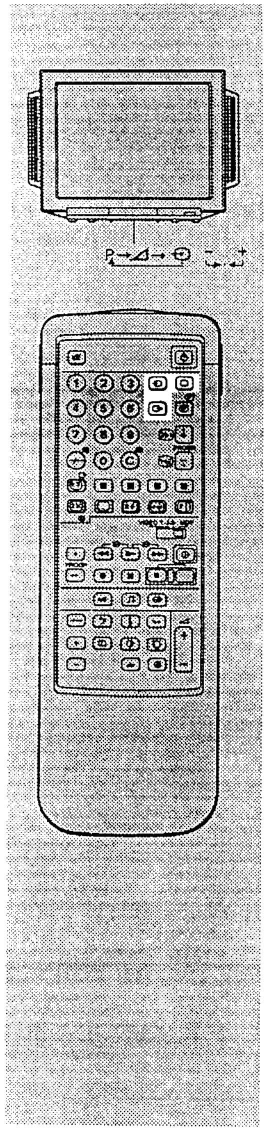
Note
If the signal of the TV channel is weak, teletext errors may often occur.

How to Use the Advanced Features of Teletext

How to	Action	Result (On-screen display)
Request the index page.	Press ⊡ (INDEX).	The index page appears.
Request the subtitle page (p888).	Press ⊝.	The subtitle page is displayed (p888).
Access the next or preceding page	Press ⊕ (PAGE +) or ⊖ (PAGE –).	The next or preceding page appears.
Superimpose the teletext display on the TV programme.	Press ⊜ once if you are in text mode, or press ⊜ twice if in TV mode. To return to the normal teletext display press ⊜ again.	The teletext displays are superimposed on the TV programme.
Prevent a teletext page from being updated or changed.	Press ⊞ (HOLD). To resume normal teletext reception, press ⊜ (TEXT/MIX).	The HOLD symbol (⊞) appears on the screen and the chosen sub-page is held until you cancel.
Enlarge the teletext display.	Press ⊟ once to enlarge the upper half. Press twice to enlarge the lower half. Press again to restore the normal display.	The upper half is enlarged.
Reveal concealed information (e.g. answers to a quiz).	Press ⊡ (REVEAL). Press again to conceal the information.	 The information is revealed.
Watch the TV programme while waiting for a requested page to be displayed.	**1.** Request a new page	The numbers are entered.
	2. Press ⊠ (TEXT CL).	The TV program is displayed, and the requested page number and other teletext data appear at the top of the screen.
	3. When the requested page has been captured, the page number remains and the other data disappears.	
	4. Press ⊜ to view this page.	The requested page is displayed.
Have a requested page displayed at a pre-determined time.	**1.** Request a desired page.	The requested page is displayed.
	2. Press ⊗ (TP ON).	"T****" appears at the bottom or "0001" at the top of the screen.
	3. Enter the time you want to have the page displayed with four digits using the number buttons. (For example, enter 0730 for 7:30 AM.)	The time is entered on the screen.
	To watch the TV programme until the requested time Press ⊠ (TEXT CL). At the requested time, the page number will be displayed at the top of the screen. To view this page, press ⊜ . **To cancel the request** Display the teletext page, then press ⊗ (TP OFF).	

Some of the features may not be available depending on the Teletext service.

1-7. OPTIONAL CONNECTIONS/OPERATIONS



How to view the video input picture

You can view the picture of video equipment connected to the input terminals by selecting the input mode.

Operation

Symbol	Result
Press ⇥ repeatedly to select the desired input.	⇥1 Symbol for the selected input appears. (See the table below.)
To return to the TV mode, press the ▢ button.	

Input modes

Symbol	Result
⇥ 1	Audio/video input through the ⌓-1 connector.
⊸	RGB input through the ⌓-1 connector.
⇥ 2	Audio/video input through the ↦ 2/⇥ connector.
⇥S 2	S video input (from a VTR equipped with an S video output) through the ↦ 2/⇥ connector.
⇥ 3	Audio/video input through ⇥ and ⇥ jacks on the front.
⇥S 3	S video input through the ⇥S connectors on the front (4-pin connector).
You can also select the input mode using the P→◿→⇥ button on the TV. In this case, first select ⇥, and then press +/– buttons to select the input.	

How to select the Output

The ↦ 2/⇥ connector outputs four kinds of audio/video signals. You have to select one of them as follows.

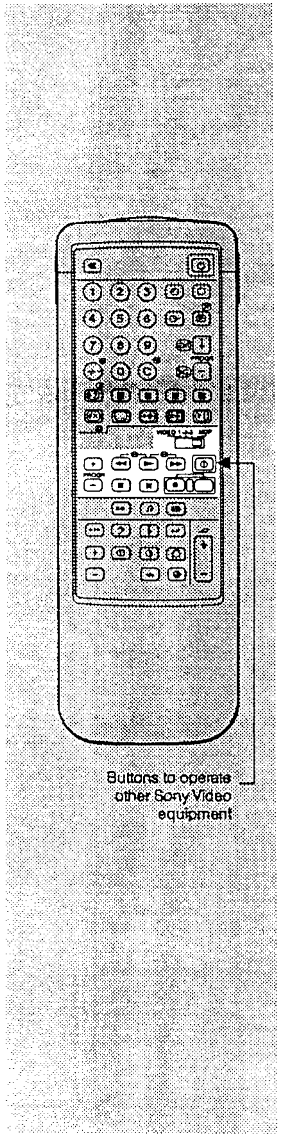
Operation

Action	Result
Press ↦ repeatedly to select the desired input.	1↦ Symbol for the selected output signals appears. (See the table below.)

Output modes

Symbol	Output from
1↦	The audio/video signal from the ⌓-1 connector.
2↦	The audio/video signal from the ↦ 2/⇥ connector.
3↦	The audio/video signal from the ⇥, ⇥ connectors.
TV↦	The audio/video signal from the ψ aerial terminal.

1-8. ADDITIONAL REMOTE COMMANDER OPERATION



How to Control Other Sony Video Equipment

By switching the VIDEO 1/2/3 MDP selector, you can operate most Sony video equipment (Beta VTR, 8 mm VTR, VHS VTR, and video disc player)

1 Set VIDEO 1/2/3 MDP selector according to the desired video equipment.

VIDEO 1:	Beta or ED Beta VTR
VIDEO 2:	8 mm VTR
VIDEO 3:	VHS VTR
MDP:	Video disc player

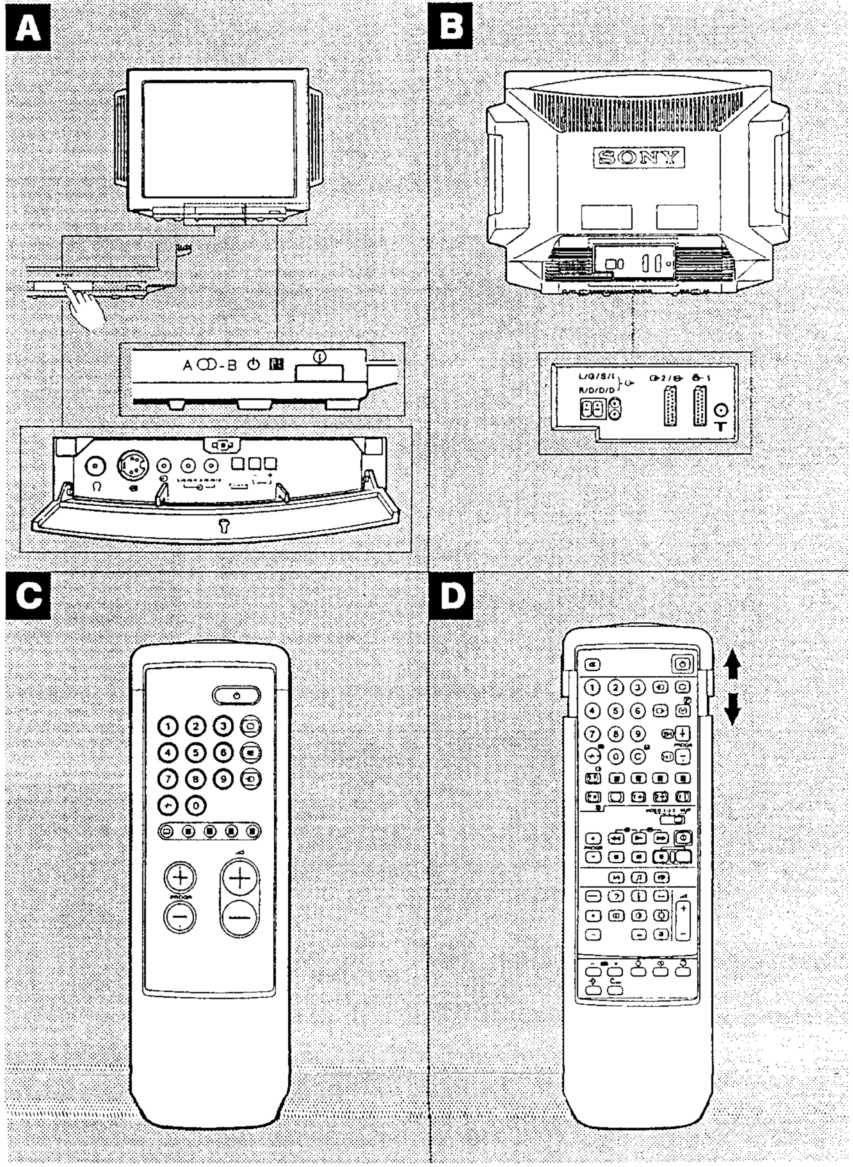
2 Use the buttons in the indicated area to operate video equipment.

Note:
When you use the ● button, be sure to press this button and the one on the right simultaneously.

Notes:
- If your equipment is furnished with COMMAND MODE selector, set the selector to the same position as the VIDEO 1/2/3 MDP selector on the supplied Remote Commander.
- If the equipment does not have a certain funciton, the corresponding button on the Remote Commander will not work.

1-9. ADDITIONAL INFORMATION

Parts Identification



This section briefly describes the buttons and controls on the TV set and on the Remote Commander.
For more information, refer to the pages given next to each description.

A TV set – Front

Sign	Name
⦶	Main power switch
⏻	Standby indicator
A-ⓒ-B	Bilingual A/B indicators
∩	Headphones jack (stereo minijack)
⊖ ⊖ ⊖	Input jacks (S-video/video/audio)
P→◿→⊖	Function selector (Programme/ volume/input)
– +	Adjustment buttons for function selector

B TV set – Rear

Sign	Name
LGSI RDDD	Loudspeaker terminals (top: left, bottom: right)
⊖ 2/⊖	21-pin Euro-AV connector S-video/ video input, TV/video output
⊖ 1	21-pin Euro-AV connector (RGB/video input, TV/output)
⊖	Audio output jacks (phono jacks)
⫪	Aerial terminal (IEC type)

C Remote Commander – simple side

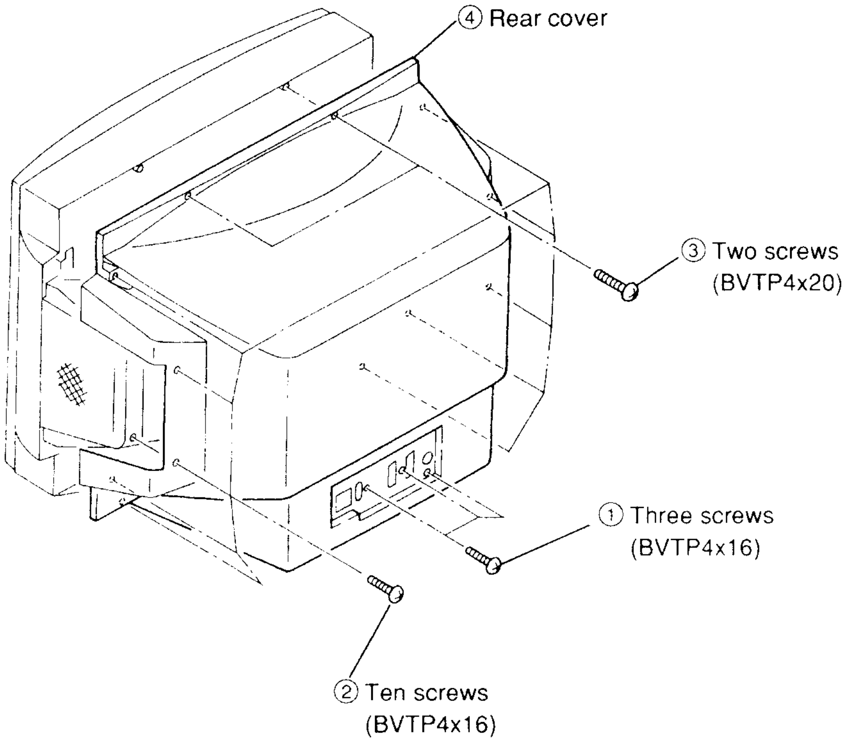
Sign	Name
⊖	Input mode selector
⊜	Teletext button
▣ ▣ ▣ ▣	TOP-Text-buttons
▢	TV mode selector
⏻	Standby button
1, 2, 3, 4, 5, 6, 7, 8, 9 and 0	Number buttons
-/--	Double-digit entering button
◿ +/–	Volume control button
PROGR +/–	Programme selector

D Remote Commander – full function side

Sign	Name
🔇	Mute on/off button
⏻	Standby button
1, 2, 3, 4, 5, 6, 7, 8, 9 and 0	Number buttons
⊖	Input mode selector
▢	TV power on/TV mode selector button
⊖	Output mode selector
⊜	Teletext button
♫	Music button
A/B	Language selector in bilingual programme
-/--	Double-digit entering button
C	Direct channel entering button
⊖	Space sound button
⊖	Request time display
⊖ ⊖ ⊖ ⊖ ⊖ ⊖ ⊖ ⊖ ⊖ ⊖	Teletext operation buttons
▣ ▣ ▣ ▣	TOP-Text-buttons
⊖	On-screen display button
→•←	Picture and sound adjustment reset button
◿ +/–	Volume control
PROGR +/–	Programme selector
⦶ ◑ ☼ ◕ ⊖ ⊖ 𝄢 𝄞 +/–	Picture and sound controls
VIDEO 1/2/3, MDP	Video equipment selector
◀◀ ▶ ▶▶ ■ ▮▮ ●	Video equipment operation buttons
Coo	Programme number clear button
⊖	Channel preset button
– ⊖ +	Tuning buttons
◇	Channel store button
▢	Station label button

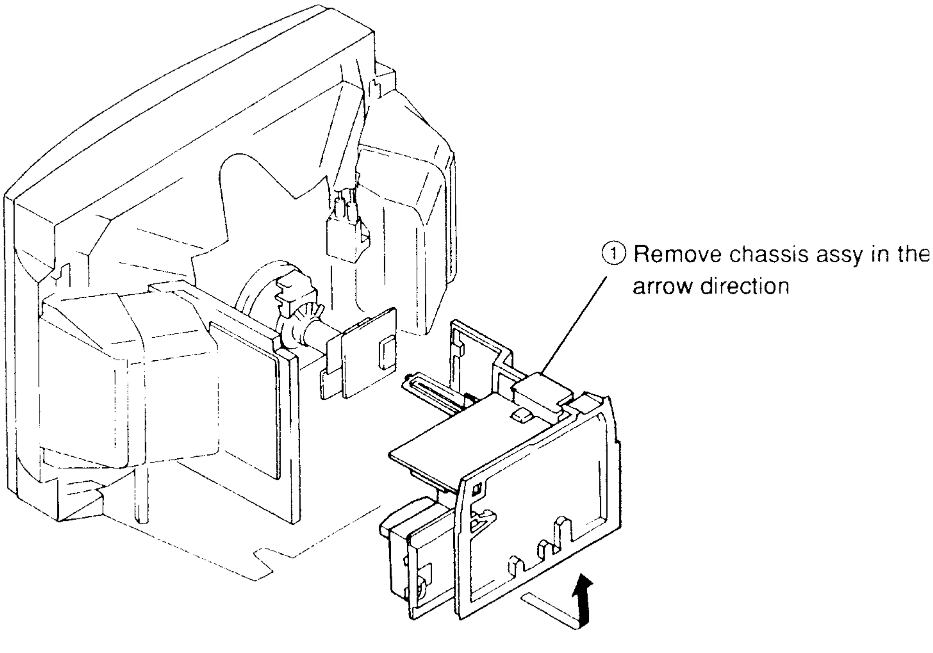
SECTION 2
DISASSEMBLY

2-1. REAR COVER REMOVAL

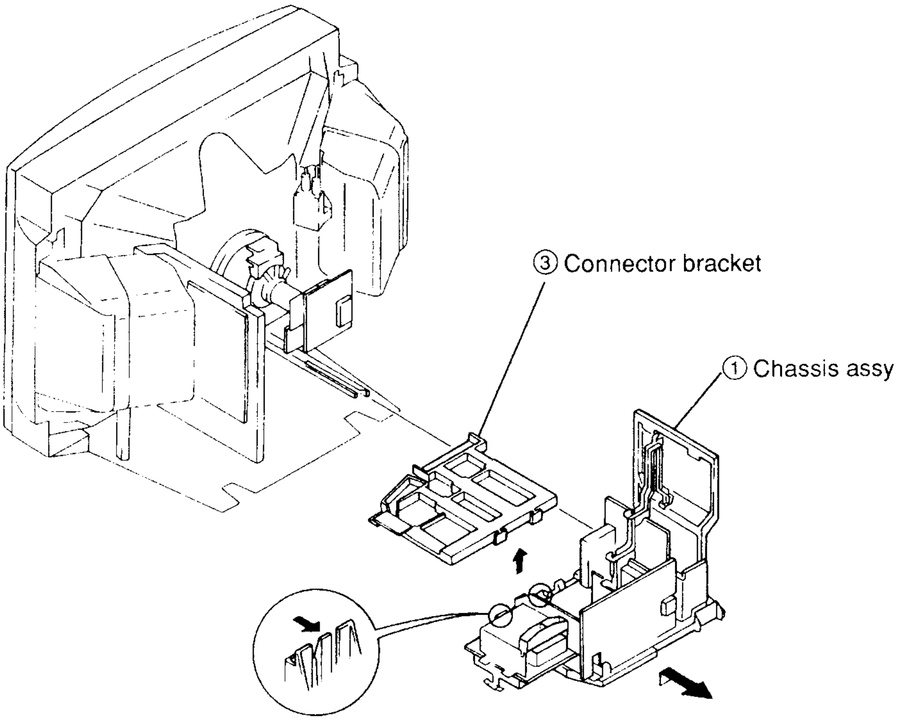


2-2. SERVICE POSITION

* Remove the connector braket and then perform the following servicing.
(refer to 2-3. CHASSIS ASSY REMOVAL.)

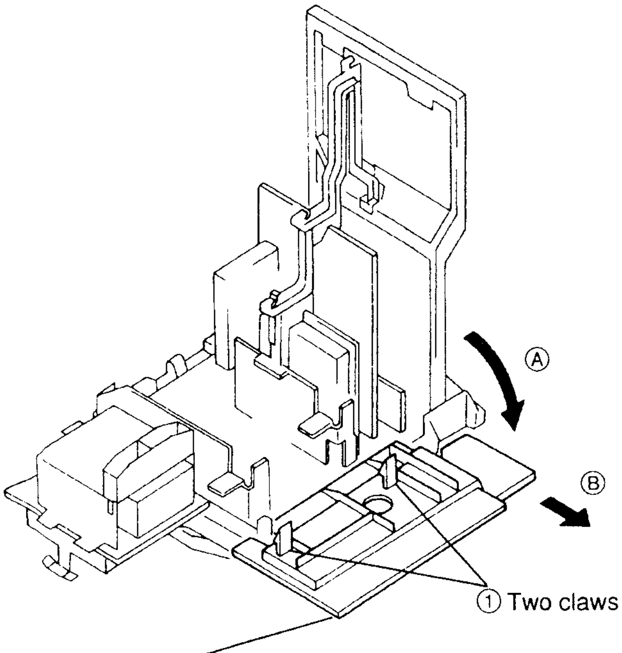


2-3. CHASSIS ASSY REMOVAL



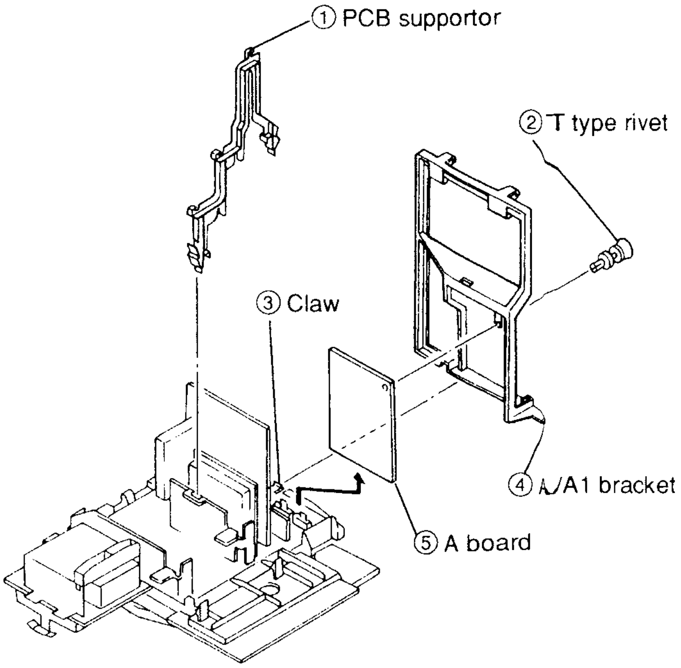
② Push two claws of the chassis assy in the direction of arrow and remove the connector bracket.

2-4. J BOARD REMOVAL

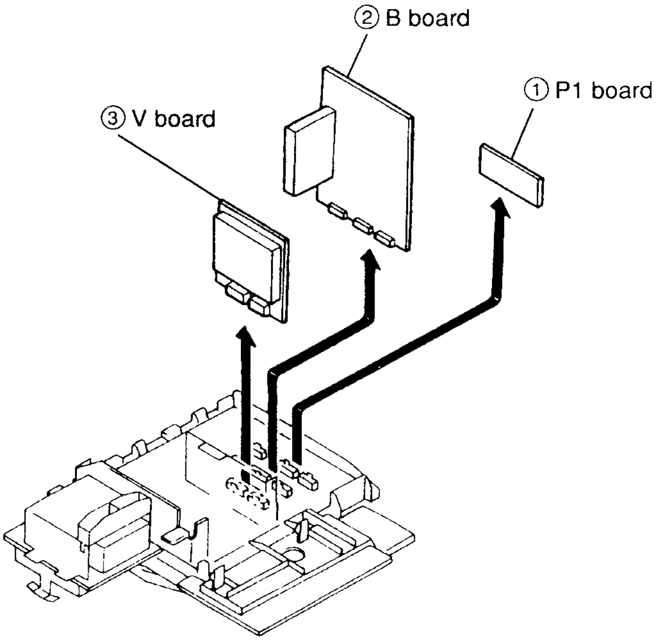


② Open J board in the direction of arrow Ⓐ.
Remove the arrow Ⓑ direction.

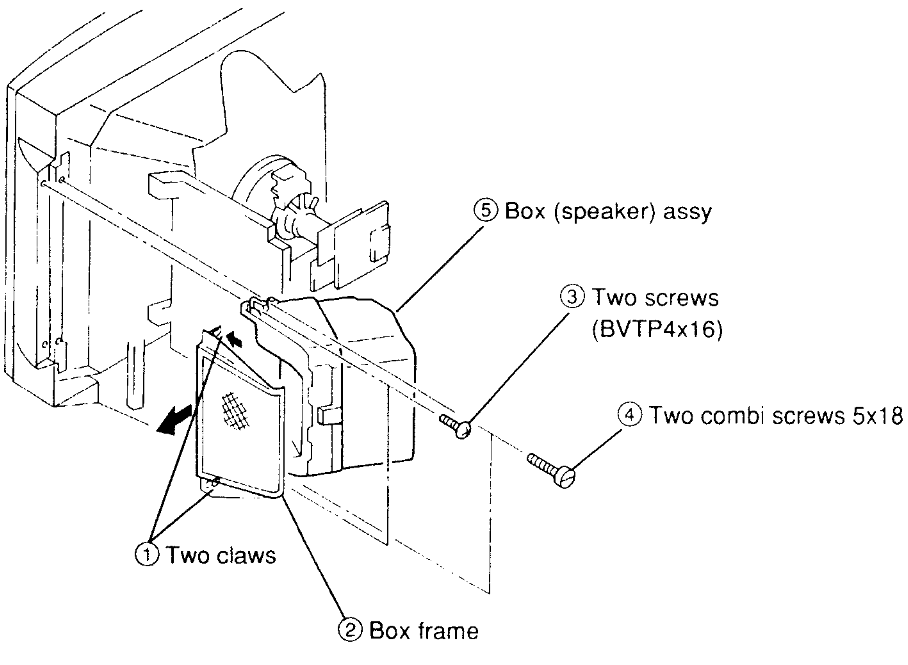
2-5. A BOARD REMOVAL



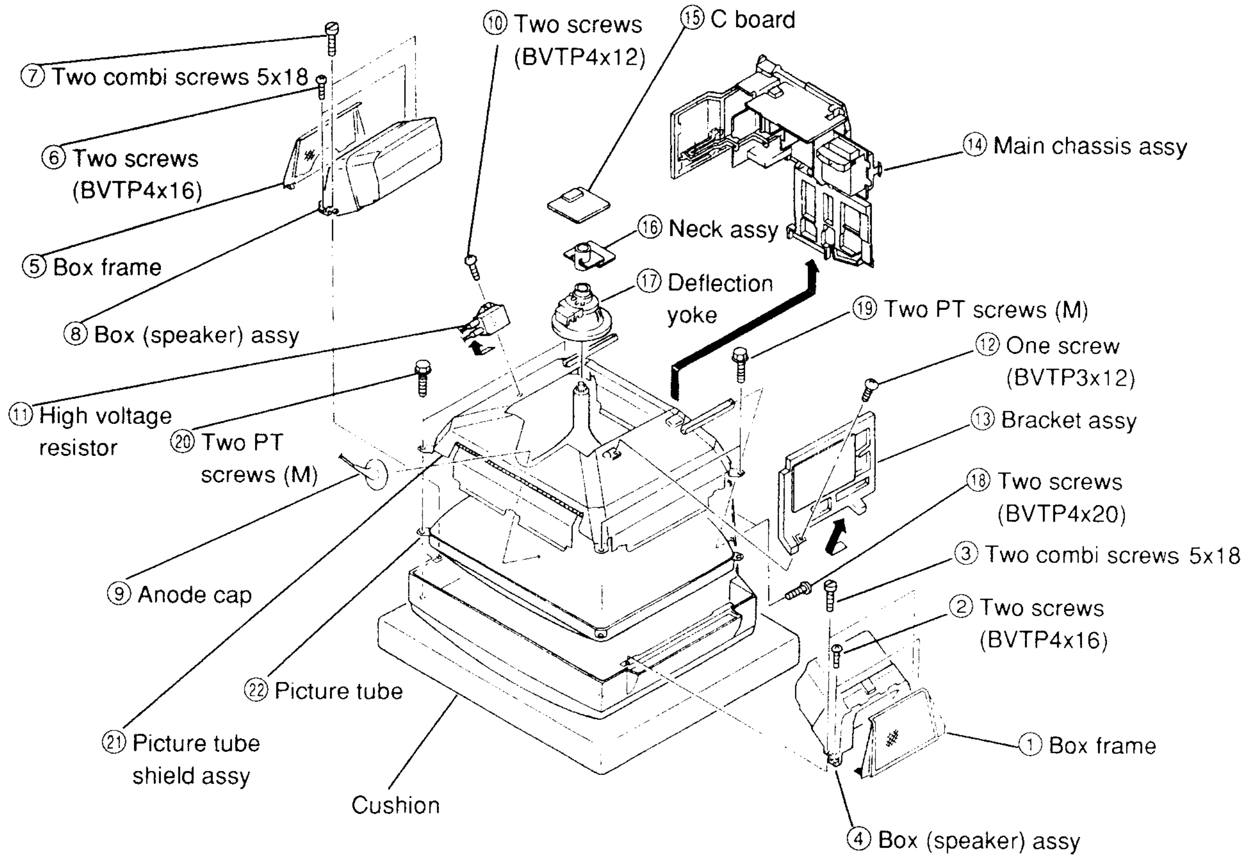
2-6. P1, B AND V BOARDS REMOVAL



2-7. SPEAKER REMOVAL



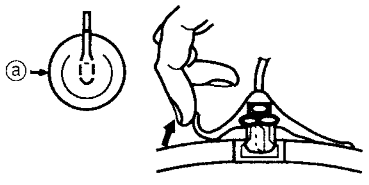
2-8. PICTURE TUBE REMOVAL



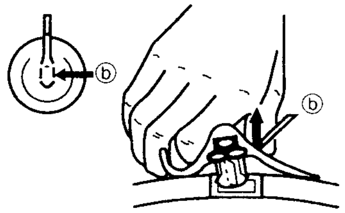
REMOVAL OF ANODE-CAP

- **METHOD OF REMOVAL**

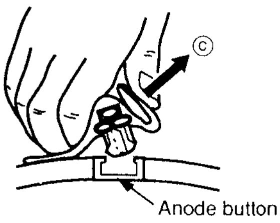
CAUTION
SHORT CIRCUIT THE ANODE OF THE PICTURETUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.



① Lift up one side of the rubber cap in the direction indicated by arrow ⓐ.



② Using a thumb, pull the rubber cap up firmly in the direction indicated by arrow ⓑ.

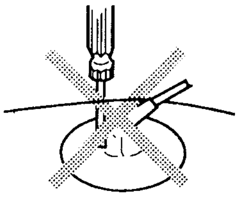


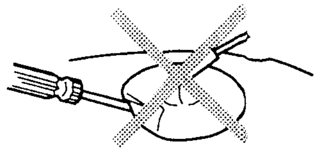
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of arrow ⓒ.

- **HOW TO HANDLE AN ANODE-CAP**

① Don't damage the surface of the anode-cap with anything sharp!

② In order not to damage the inside of the anode-cap, don't press hard on the rubber!
An item called a shatter-hook terminal is built into the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- When complete re-adjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instruction to the contrary, set the controls and switches as follows:

  ◑ CONTRAST 80%
  (or Remote control normal)
  ☼ BRIGHTNESS . 50%

- Carry out the following adjustments in this order:

1. Beam landing
2. Convergence
3. Focus
4. White balance

Note: Test equipment required
1. Colour bar/pattern generator
2. De-gausser
3. d.c. power supply
4. Digital multimeter
5. Oscilloscope

Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and de-gauss the tube with the de-gausser.

3-1. BEAM LANDING

1. Input a white signal from the pattern generator.
   Contrast } normal
   Brighness }
2. Position neck assembly as shown in Fig 3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust the purity control so that the centre of the screen is red and either side are equal areas of blue and green.
   (see Figures 3-1 through 3-3.)
5. Move the deflection yoke forward and adjust so that the entire screen is red. (See Figure 3-1.)
6. Switch the raster signal to blue and then to green to verify the setting.
7. Once the position of the deflection yoke has been decided, lock it in position with the screws.

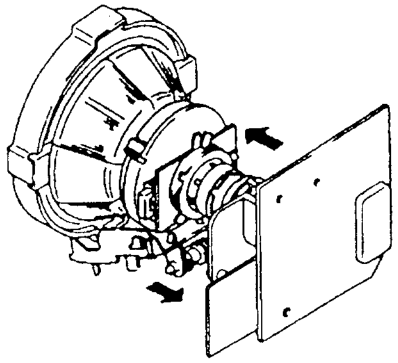


Fig. 3-1

Fig. 3-2

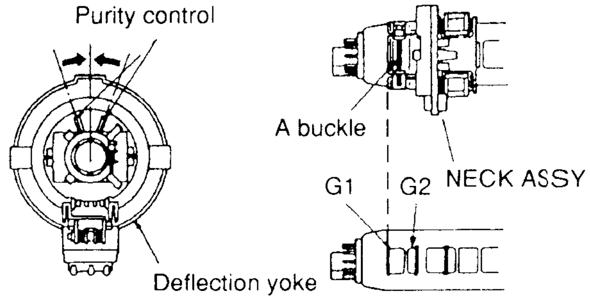


Fig. 3-3

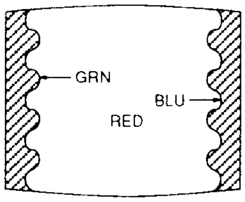
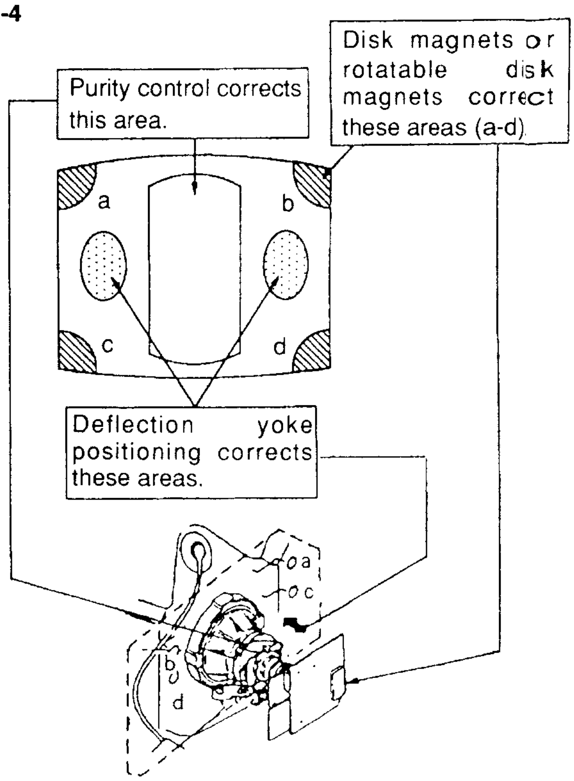


Fig. 3-4

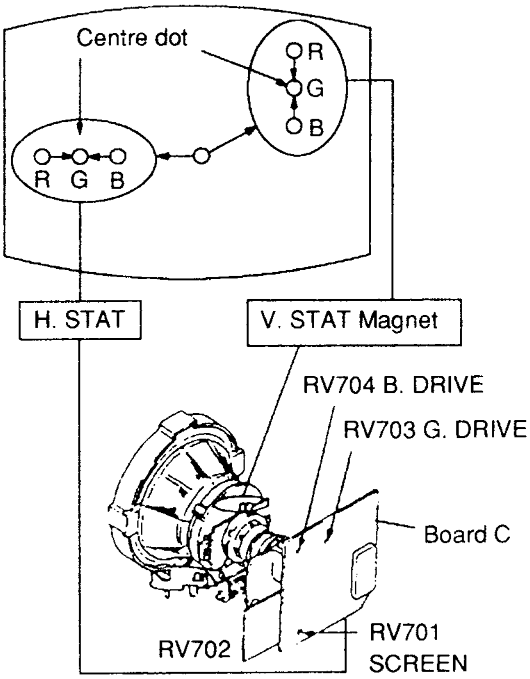

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas (a-d).
a
b
c
d
Deflection yoke positioning corrects these areas.
a
c
b
d

3-2. CONVERGENCE

Preparation:

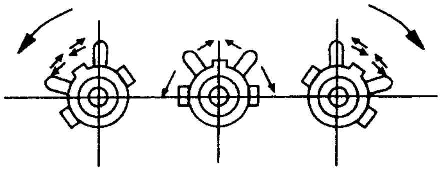
- Before starting this adjustment adjust the focus, horizontal size and vertical size.
- Set the BRIGHTNESS to minimum.
- Input a dot pattern from the Pattern generator.

(1) Horizontal and vertical static convergence



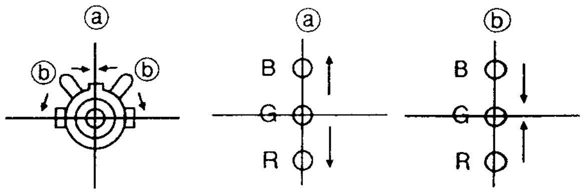
1. HORIZONTAL movement - Adjust the H.STAT control so that, at the centre of the screen, the red, green, and blue spots are on top of each other.
2. VERTICAL movement - Adjust the V.STAT magnet so that, at the centre of the screen, the red, green, and blue spots are on top of each other.
3. If the H.STAT variable resistor cannot bring the red, green, and blue spots together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet as described below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet affect each other)

- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT

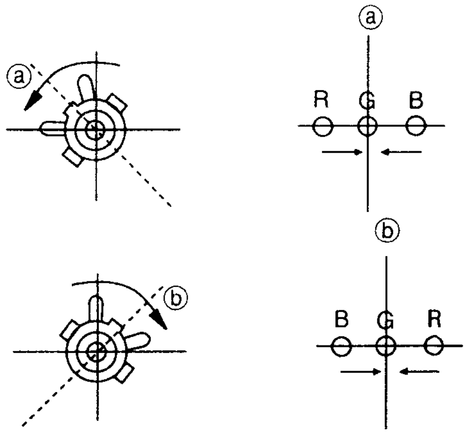


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue spots move as shown below:

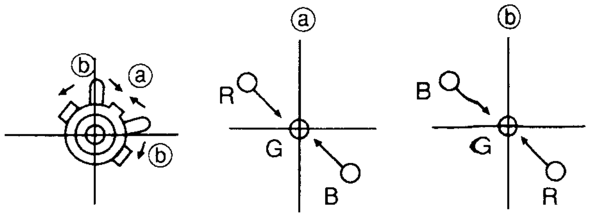
①



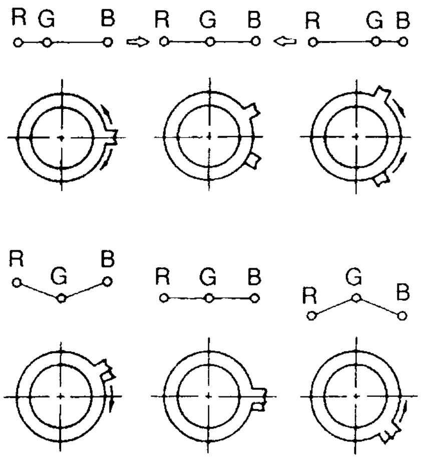
②



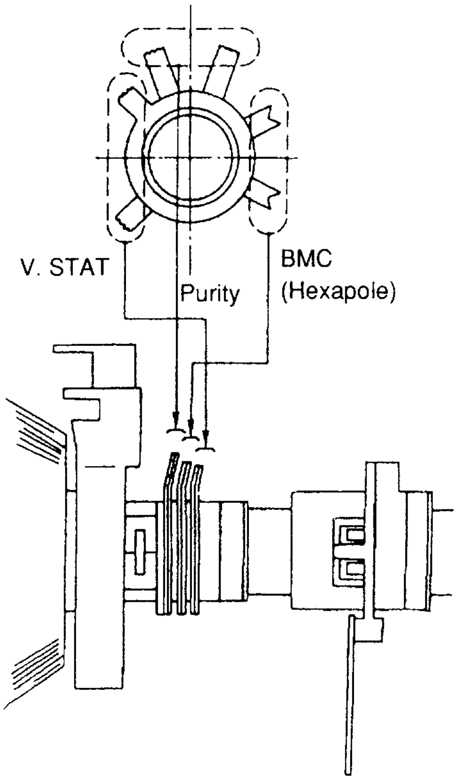
③



- Operation of BMC (Hexapole) Magnet



- The respective dot positions caused by moving each magnet interact. Therefore be sure to perform this adjustment while watching the screen.
  Use the H.STAT VR to adjust the red, green, and blue dots so that they coincide at the centre of the screen (by moving the dots in the horizontal direction).



(2) Dynamic Convergence Adjustment

1. Adjust the Y.CROSS (RV1705) and Y.BOW (RV1702) so that RED and BLUE, as shown in Fig. 3-6, become a=b=c.

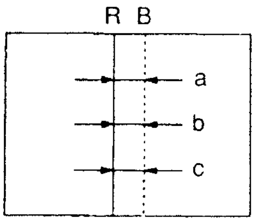


Fig. 3-6

2. Match the horizontal convergence at the centre of the screen with H STAT VR.
3. Adjust the CORNER BOW (RV1703), so that RED and BLUE, as shown in Fig. 3-7, become a=b=c and d=c=f.
   Note: At this point, if the proper relationship between a=c or d=f is not established, repeat the adjustment of Y.CROSS (RV1705).

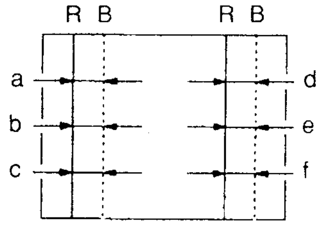


Fig. 3-7

4. Match the horizontal convergence at the centre of the screen with the H STAT VR.
5. Adjust the H TILT (RV1701) so that RED and BLUE, as shown in Fig. 3-8, become a=b.

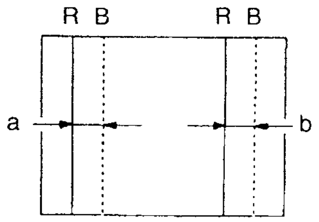


Fig. 3-8

6. Adjust the H AMP (RV1704) so that RED and BLUE, as shown in Fig. 3-9, become b=c.

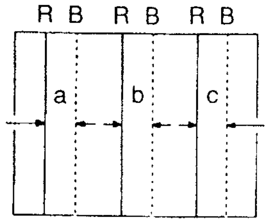
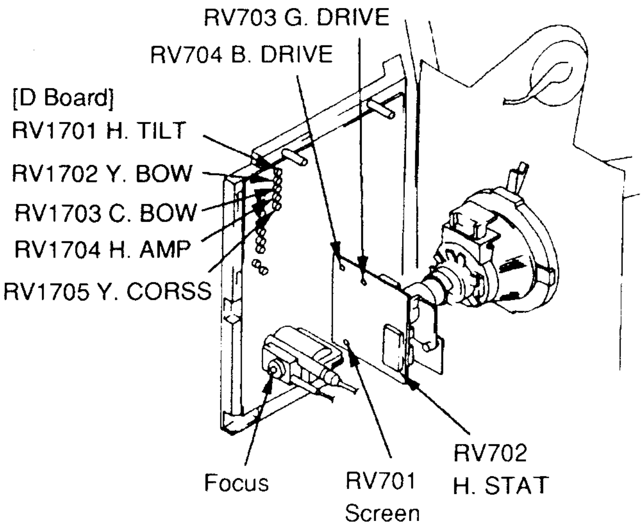
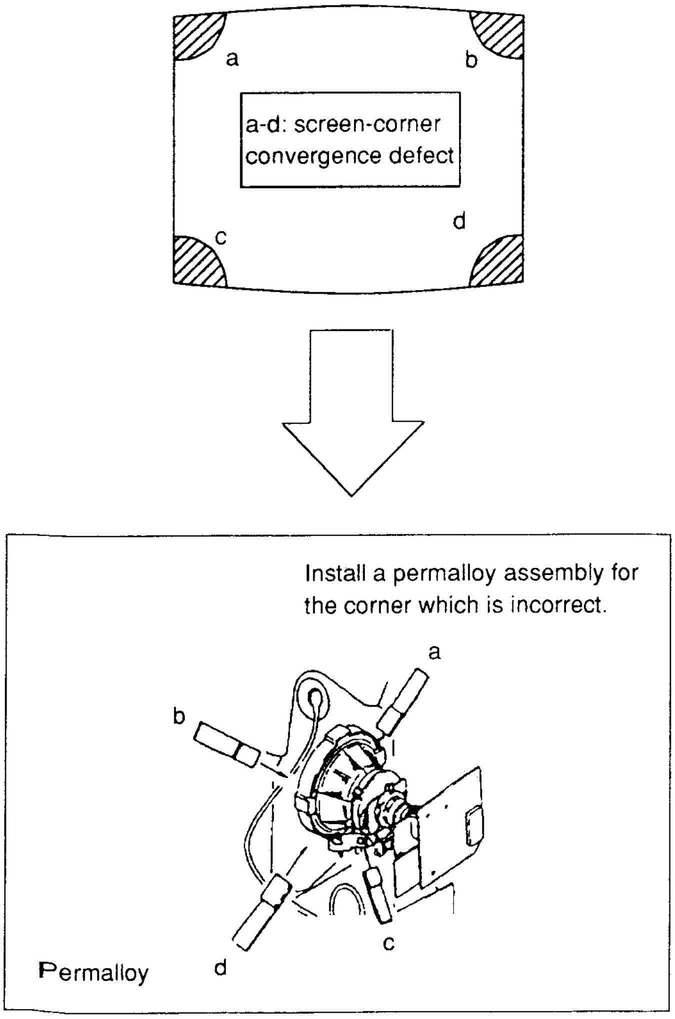


Fig. 3-9

7. Match the horizontal convergence at the centre of the screen with the H STAT VR.
8. When the H AMP is adjusted repeat the procedures described in Step (5) to Step (7).
9. If the convergence at the corners of the screen diverges, the adjustments described from Step (3) onwards should be repeated.



(3) Screen corner convergence


a
b
a-d: screen-corner convergence defect
c
d
Install a permalloy assembly for the corner which is incorrect.
a
b
c
d
Permalloy

3-3. FOCUS

Adjust the focus to optimize the display.

3-4. WHITE BALANCE

Screen G2 setting

1. Input a dot signal from the Pattern generator.
2. Set the picture BRIGHTNESS control to its minimum level.
3. Apply 180V d.c., from an external power supply, to the R, G, and B cathodes.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the fly-back lines disappear.

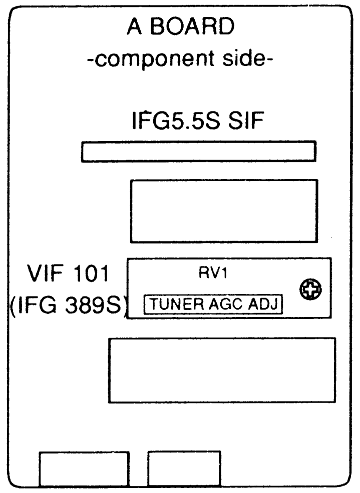
White balance adjustment

1. Input an all-white signal from the Pattern generator.
2. Set the PICTURE, BRIGHTNESS and COLOUR controls to their normal levels.
3. Use RV704 (B Drive) and RV703 (G Drive) to adjust white balance.

In the adjustments below, unless there is a specific instruction to the contrary, set the PICTURE, COLOUR and BRIGHTNESS controls to their normal levels.

SECTION 4
CIRCUIT ADJUSTMENTS

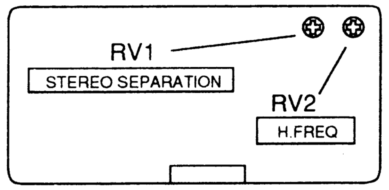
4-1. A BOARD ADJUSTMENTS



TUNER AGC ADJUSTMENT (IFG 389S)

1. Tune to an off-air signal.
2. Adjust AGC VR (IFG389S) so that snow noise and cross-modulation just disappear from the picture.

IFG5. 5S SIF



IFG5.5S SIF -component side-

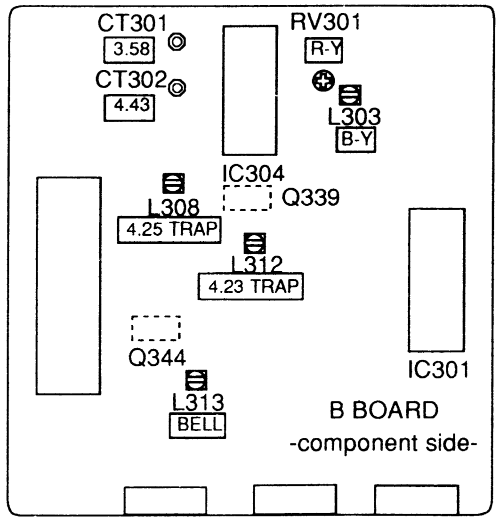
STEREO SEPARATION ADJUSTMENT (RVI)

1. Input stereo signals. (L-CH 400Hz, R-CH 1kHz)
2. Check the stereo indicator.
3. Connect an oscilloscope, via a 1kHz band-pass filter, to pin ⑧ (CHl) of CN1.
4. Adjust RV1 so that the 1kHz signal is reduced to a minimum.

H FREQ (RV2)

1. Input a PAL COLOUR BAR signal. Connect a jumper between IC4-pin ⑫ and GND.
2. Connect a frequency counter, via a 10:1 probe, to pin ④ IFG5.5S (HP) of CNl.
3. Adjust RV2 (H.FREQ) to 15.625kHz ± 50Hz.
4. After adjustment, remove the jumper.

4-2. B BOARD ADJUSTMENTS



REF OSC NTSC 3.58 MHz Adjustment (CT301)

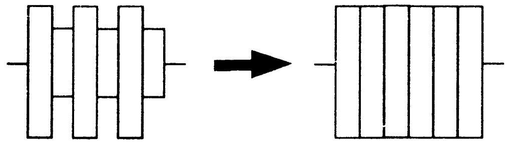
1. Input an NTSC 3.58 MHz COLOUR BAR pattern.
2. Short circuit between IC301-pin ⑰ and ground.
3. Adjust CT301 for the slowest picture movement.
4. Remove the jumper wire from IC301.

REF OSC Adjustment NTSC 4.43 MHz Adjustment (CT302)

1. Input an NTSC 4.43 MHz COLOUR BAR pattern.
2. Short circuit between IC301-pin ⑰ and ground.
3. Adjust CT302 for the slowest picture movement.
4. Remove the jumper wire from IC301.

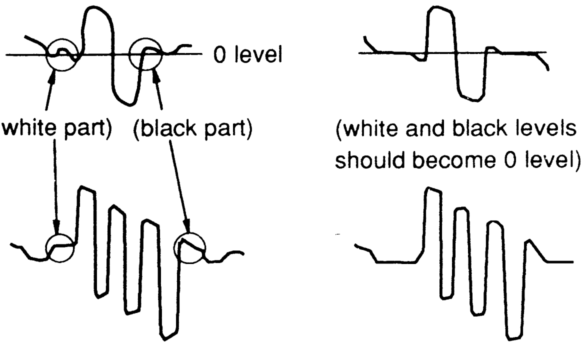
BELL FILTER ADJUSTMENT (L313)

1. Input a SECAM colour bar signal.
2. Connect the oscilloscope to the emitter of Q344.
3. Adjust L313 so that the waveform is flat.



DISCRIMINATOR ADJUSTMENT (RV301 and L303)

1. Input a SECAM colour bar signal.
2. Connect the oscilloscope to IC304-pin ①.
3. Adjust RV301 until the white and black sections of the waveform at pin ① are at the 0 level.
4. Connect the oscilloscope to IC304-pin ③.
5. Adjust L303 until the white and black sections of the waveform at pin ③ are at the 0 level.



(Before Adjustment) (After Adjustment)

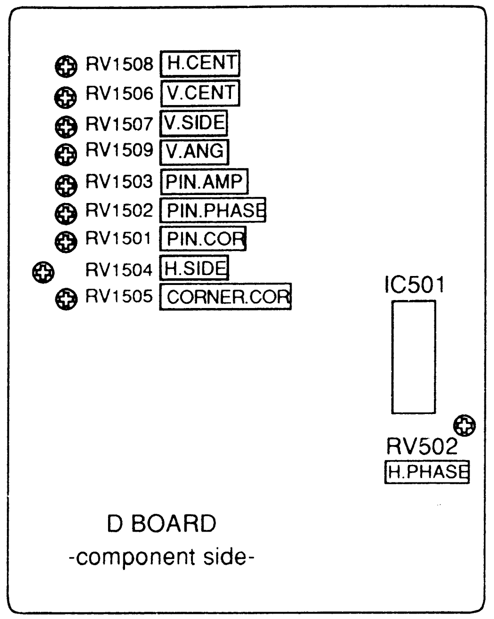
4.25 TRAP Adjustment (L308)

1. Input a SECAM COLOUR BAR pattern.
2. Connect an oscilloscope to the Q339 emitter.
3. Adjust L308 so that the 4.25 MHz waveform is at a minimum.

4.23 TRAP ADJUSTMENT (L312)

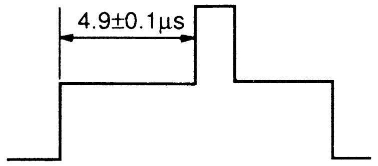
1. Input a SECAM COLOUR BAR pattern.
2. Connect an oscilloscope to the Q339 emitter.
3. Adjust L312 so that the 4.43 MHz waveform is minimum.

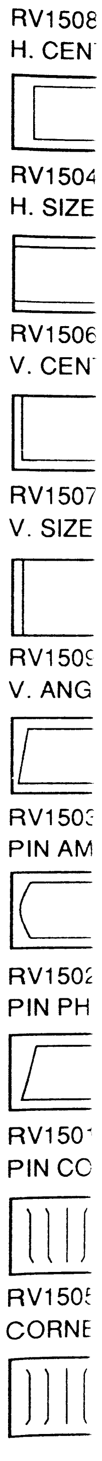
4-3. D BOARD ADJUSTMENT



H.PHASE ADJUSTMENT (RV502)

1. Input a PAL colour bar signal.
2. Set the PICTURE and BRIGHTNESS controls to their normal levels.
3. Set RV1508 (H.CENT) to its mechanical centre.
4. Connect the oscilloscope to IC501-pin ⑪ (SCP).
5. Rotate RV502 to adjust the waveform to 4.9 ± 0.1μs.

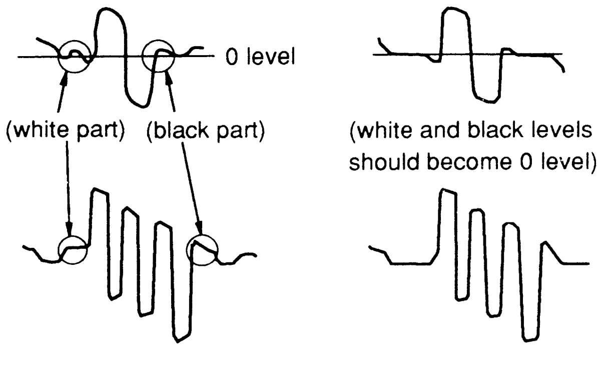




CT302)

DISCRIMINATOR ADJUSTMENT (RV301 and L303)

1. Input a SECAM colour bar signal.
2. Connect the oscilloscope to IC304-pin ①.
3. Adjust RV301 until the white and black sections of the waveform at pin ① are at the 0 level.
4. Connect the oscilloscope to IC304-pin ③.
5. Adjust L303 until the white and black sections of the waveform at pin ③ are at the 0 level.



(Before Adjustment)

(After Adjustment)

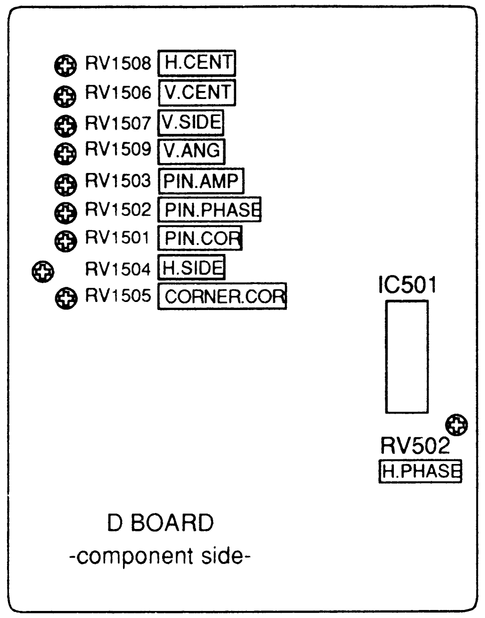
4.25 TRAP Adjustment (L308)

1. Input a SECAM COLOUR BAR pattern.
2. Connect an oscilloscope to the Q339 emitter.
3. Adjust L308 so that the 4.25 MHz waveform is at a minimum.

4.23 TRAP ADJUSTMENT (L312)

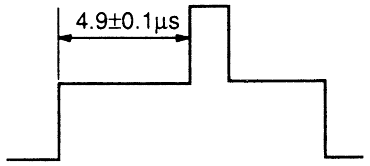
1. Input a SECAM COLOUR BAR pattern.
2. Connect an oscilloscope to the Q339 emitter.
3. Adjust L312 so that the 4.43 MHz waveform is minimum.

4-3. D BOARD ADJUSTMENT

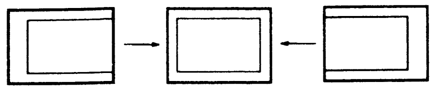


H.PHASE ADJUSTMENT (RV502)

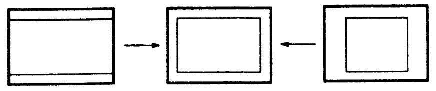
1. Input a PAL colour bar signal.
2. Set the PICTURE and BRIGHTNESS controls to their normal levels.
3. Set RV1508 (H.CENT) to its mechanical centre.
4. Connect the oscilloscope to IC501-pin ⑪ (SCP).
5. Rotate RV502 to adjust the waveform to 4.9 ± 0.1µs.



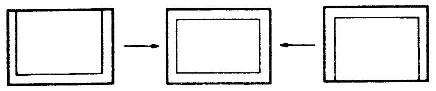
RV1508
H. CENT (HORIZONTAL CENTRE)



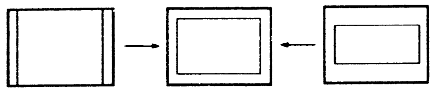
RV1504
H. SIZE (HORIZONTAL SIZE)



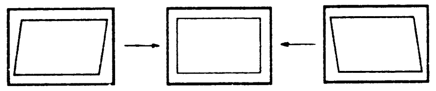
RV1506
V. CENT (VERTICAL CENTRE)



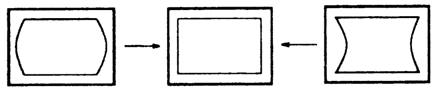
RV1507
V. SIZE (VERTICAL SIZE)



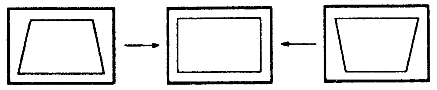
RV1509
V. ANGLE (VERTICAL ANGLE)



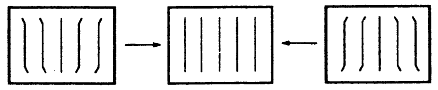
RV1503
PIN AMP (PINCUSHION AMPLITUDE)



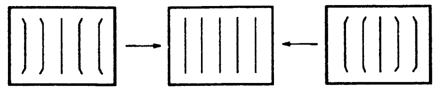
RV1502
PIN PHASE (PINCUSHION PHASE)



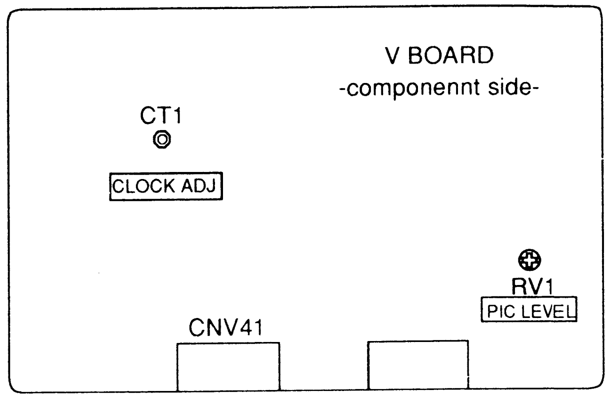
RV1501
PIN COR (PINCUSHION CORRECTION)



RV1505
CORNER COR (CORNER CORRECTION)



4-4. V BOARD ADJUSTMENTS



CLOCK ADJUSTMENT (CT1)

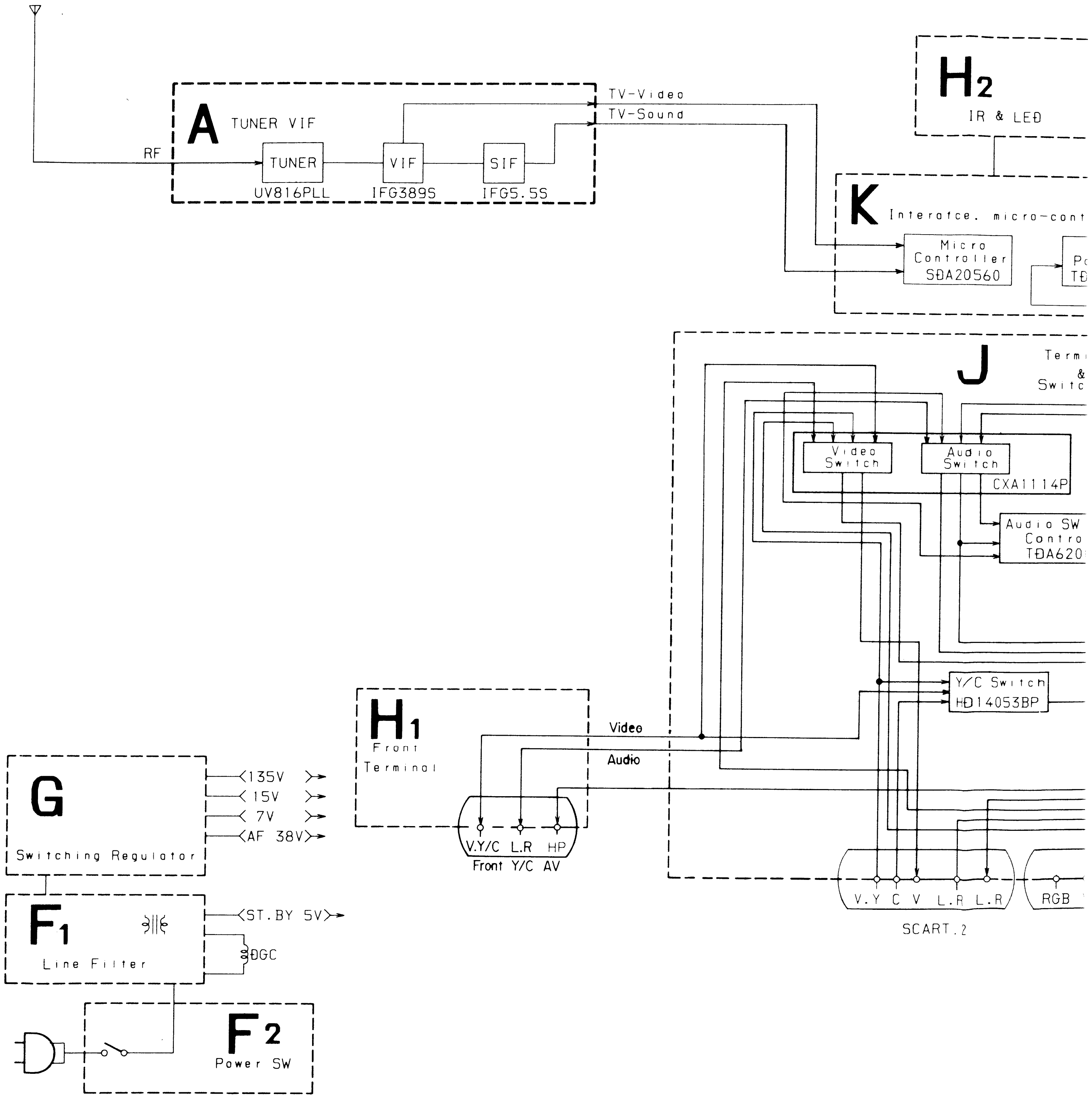
1. Remove CNV41 connector pin ③.
2. Put the system into text mode.
3. Adjust CT1 so that the picture is stable.

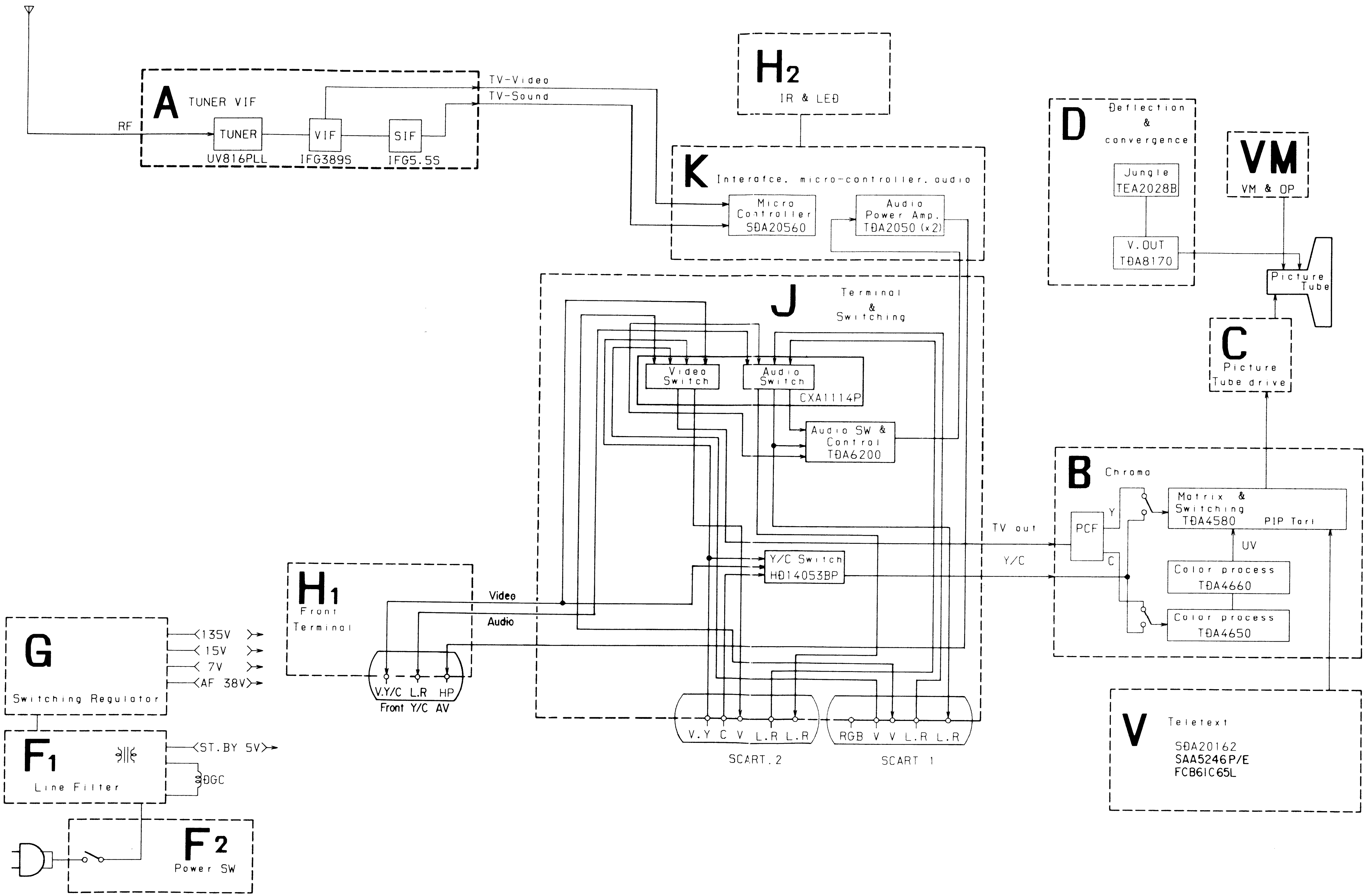
PIC LEVEL ADJUSTMENT (RV1)

1. Set the PICTURE control to maximum.
2. Adjust RV1 so that the RGB output is 0.75V.

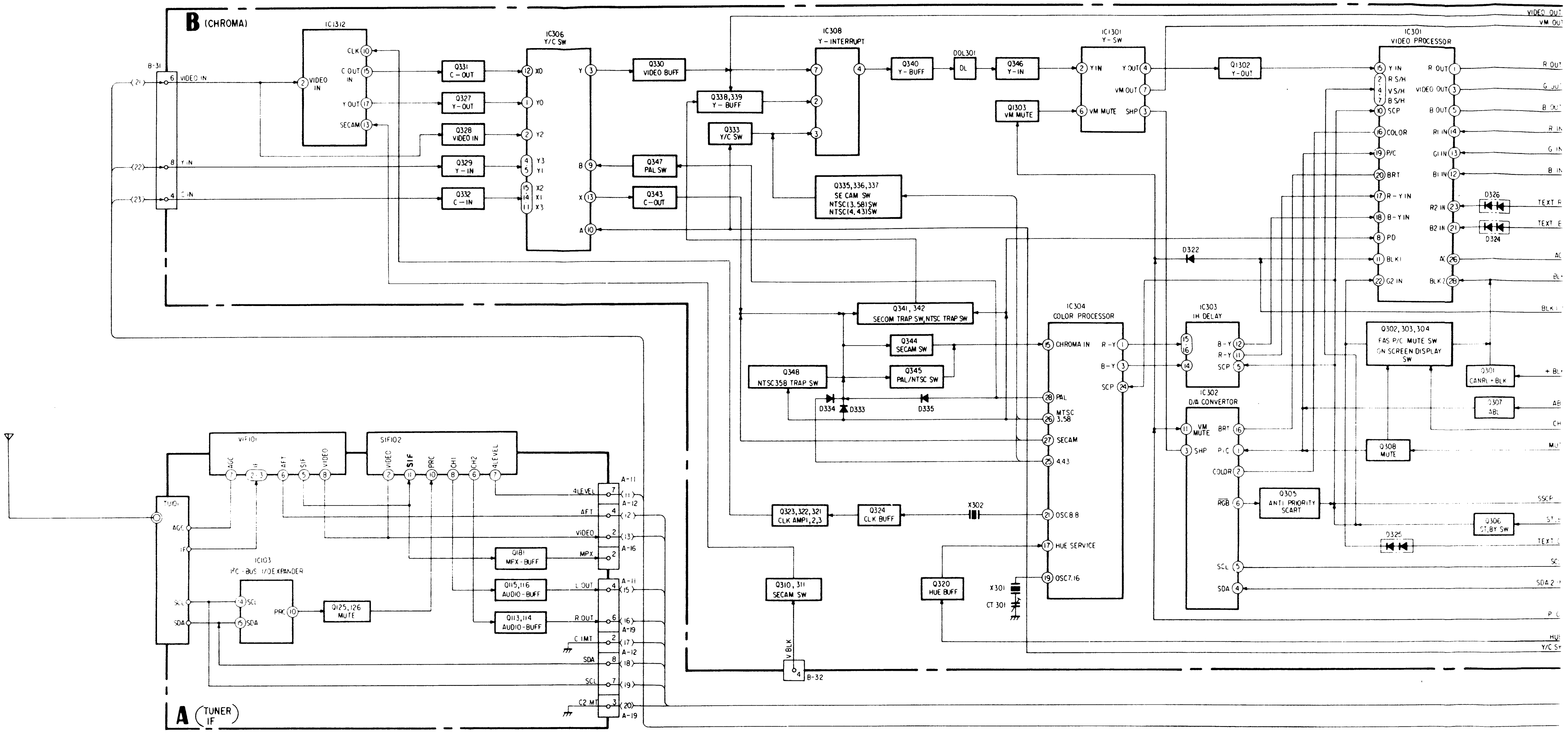
SECTION 5
DIAGRAMS

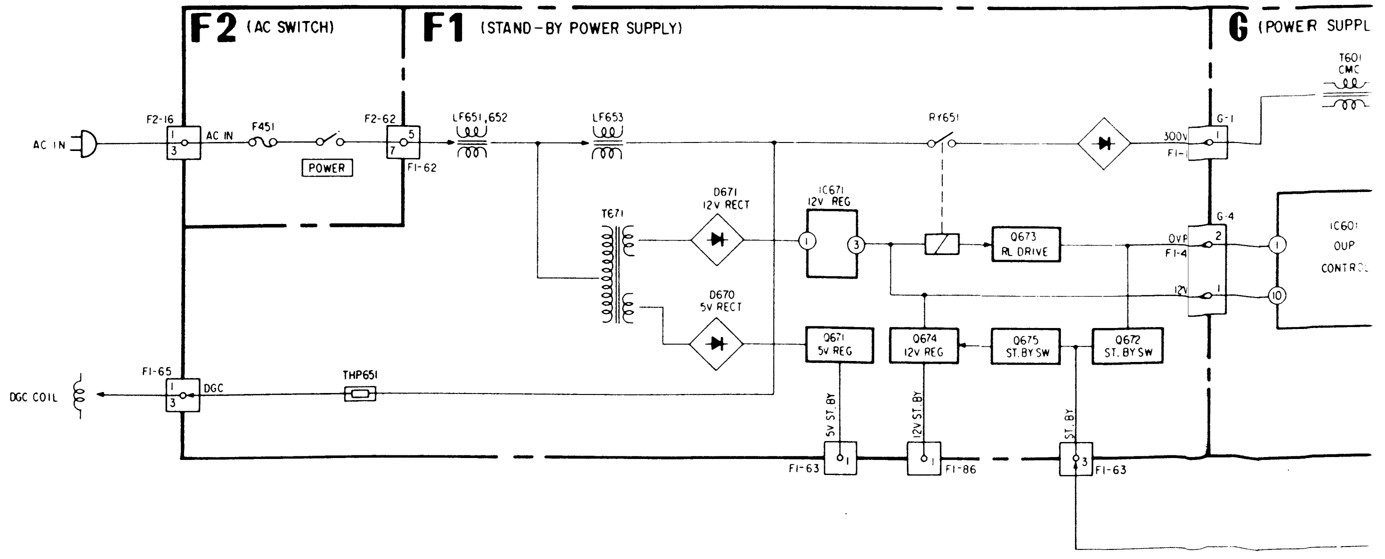
5-1. BLOCK DIAGRAMS (1)

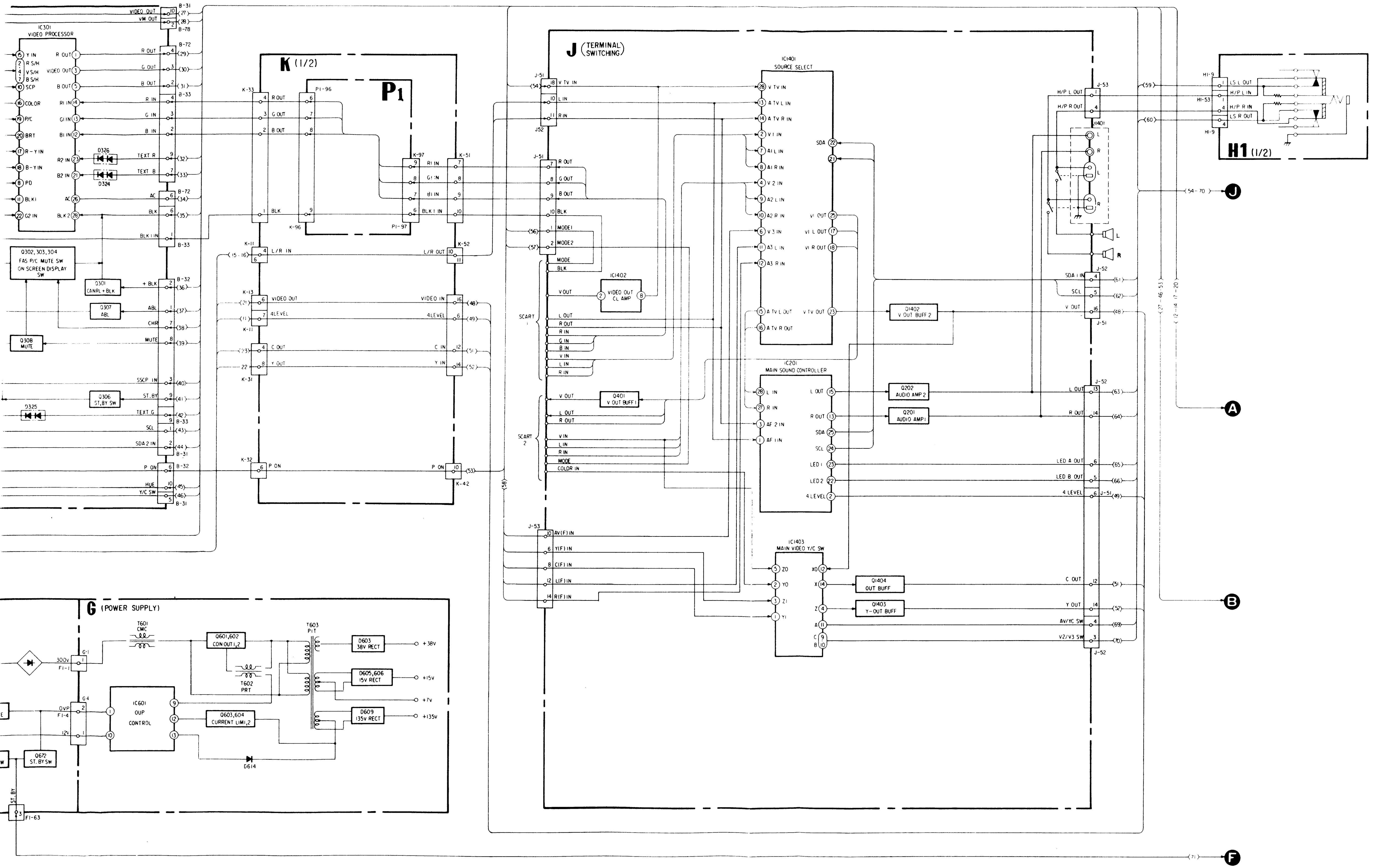



RF
A
TUNER VIF
TUNER
UV816PLL
VIF
IFG389S
SIF
IFG5.5S
TV-Video
TV-Sound
H2
IR & LED
K
Interafce, micro-controller, audio
Micro Controller SDA20560
Audio Power Amp. TDA2050 (×2)
J
Terminal & Switching
Video Switch
Audio Switch
CXA1114P
Audio SW & Control TDA6200
Y/C Switch HD14053BP
TV out
Y/C
H1
Front Terminal
Video
Audio
V.Y/C L.R HP
Front Y/C AV
V.Y C V L.R L.R
SCART. 2
RGB V V L.R L.R
SCART 1
D
Deflection & convergence
Jungle TEA2028B
V.OUT TDA8170
VM
VM & OP
Picture Tube
C
Picture Tube drive
B
Chroma
PCF
Y
C
Matrix & Switching TDA4580
PIP Tori
UV
Color process TDA4660
Color process TDA4650
V
Teletext
SDA20162
SAA5246P/E
FCB61C65L
G
Switching Regulator
135V
15V
7V
AF 38V
F1
Line Filter
ST.BY 5V
DGC
F2
Power SW

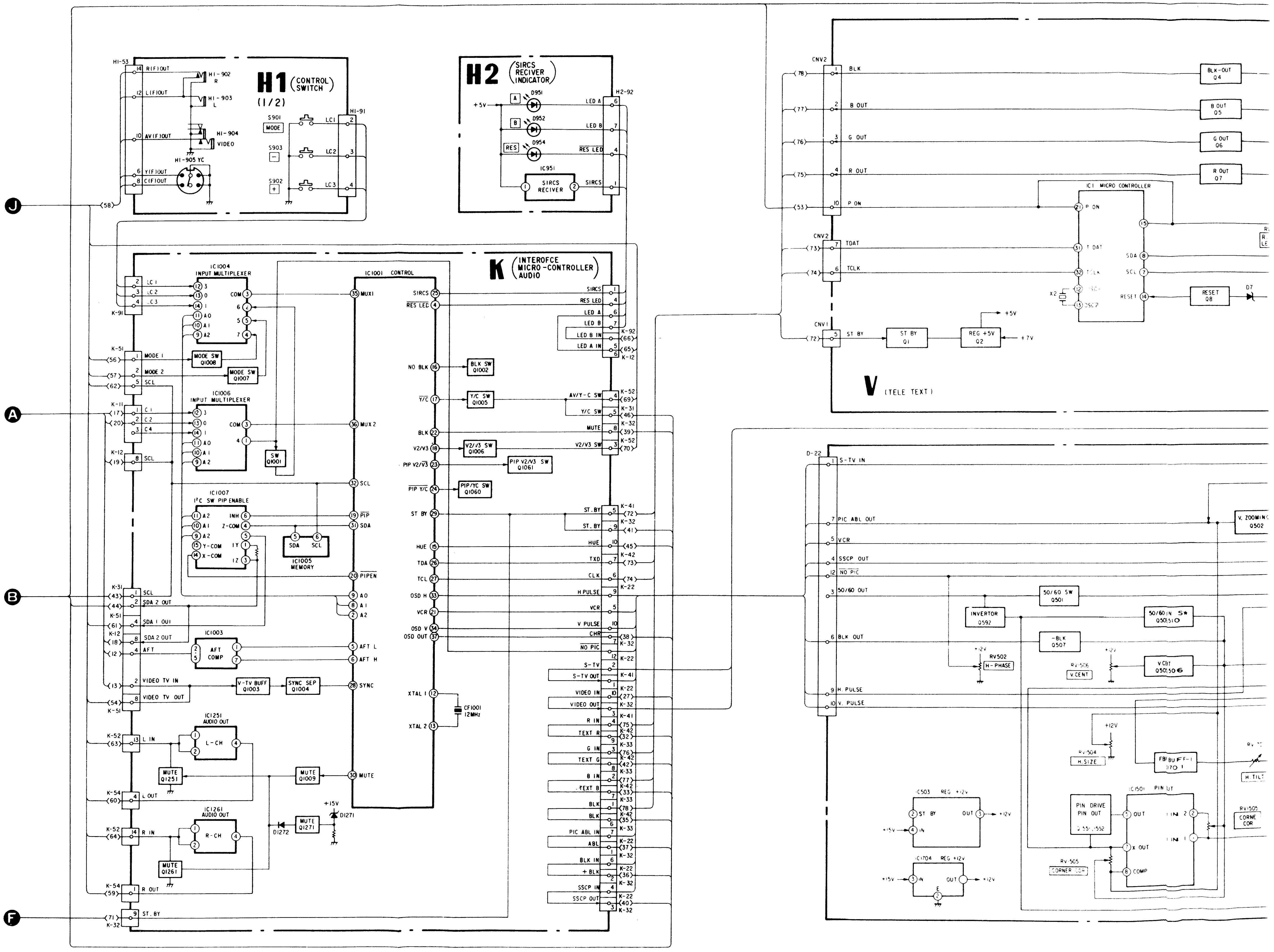
5-2. BLOCK DIAGRAMS (2)

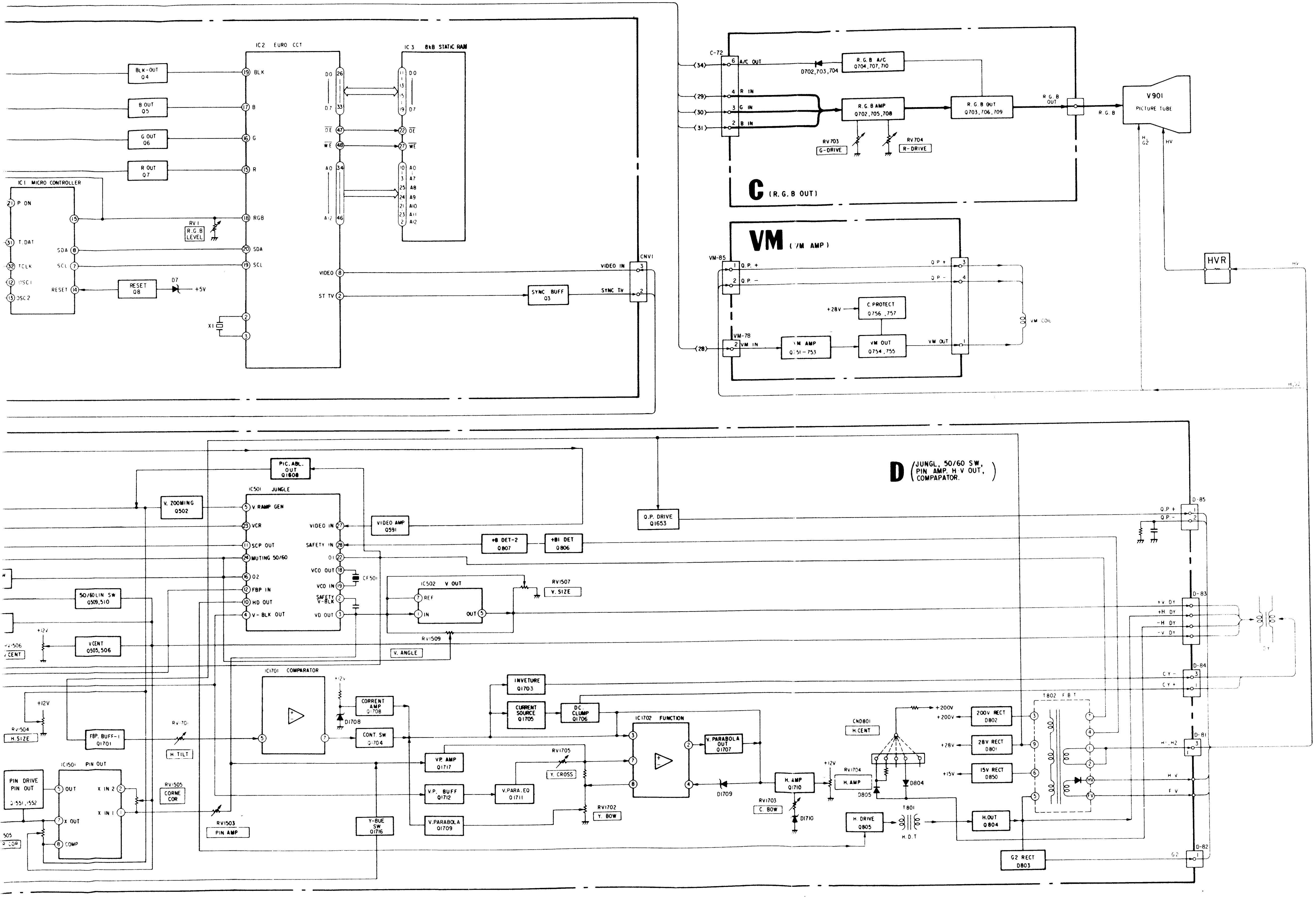




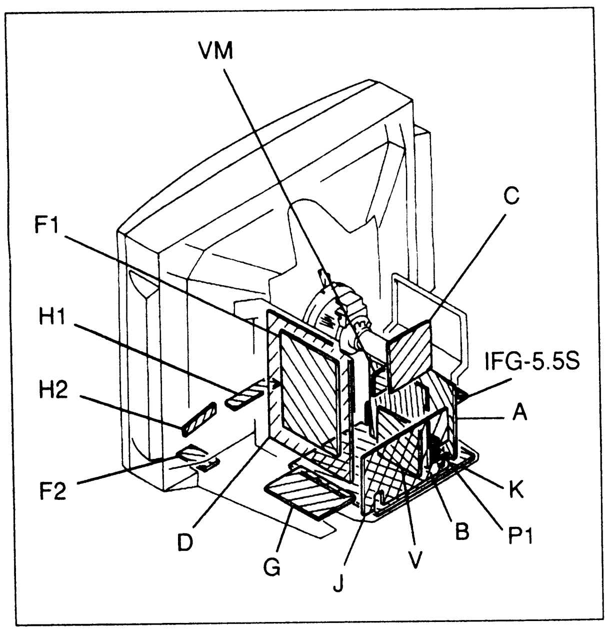

IC301 VIDEO PROCESSOR
K (1/2)
P1
J (TERMINAL SWITCHING)
IC1401 SOURCE SELECT
IC1402 VIDEO OUT CL AMP
Q401 V OUT BUFF 1
Q1402 V OUT BUFF 2
IC201 MAIN SOUND CONTROLLER
Q202 AUDIO AMP 2
Q201 AUDIO AMP 1
IC1403 MAIN VIDEO Y/C SW
Q1404 OUT BUFF
Q1403 Y-OUT BUFF
H1 (1/2)
SCART 1
SCART 2
Q302,303,304 FAS P/C MUTE SW ON SCREEN DISPLAY SW
Q301 CANRL+BLK
Q307 ABL
Q308 MUTE
Q306 ST.BY SW
D325
D326
D324
G (POWER SUPPLY)
T601 CMC
Q601,602 CON OUT 1,2
T602 PRT
T603 PIT
D603 38V RECT
D605,606 15V RECT
D609 135V RECT
IC601 OVP CONTROL
Q603,604 CURRENT LIMI 1,2
D614
Q672 ST.BY SW
+38V
+15V
+7V
+135V
J
A
B
F

5-3. BLOCK DIAGRAMS (3)




IC2 EURO CCT
IC3 8kB STATIC RAM
BLK-OUT Q4
B OUT Q5
G OUT Q6
R OUT Q7
IC1 MICRO CONTROLLER
P ON
T.DAT
TCLK
OSC1
OSC2
SDA
SCL
RESET
RV1 R.G.B LEVEL
RESET Q8
D7
+5V
BLK
B
G
R
RGB
SDA
SCL
X1
D0
D7
OE
WE
A0
A12
A7
A8
A9
A10
A11
VIDEO
ST TV
SYNC BUFF Q3
VIDEO IN
SYNC TV
CNV1
C-72
A/C OUT
R IN
G IN
B IN
D702,703,704
R.G.B A/C Q704,707,710
R.G.B AMP Q702,705,708
R.G.B OUT Q703,706,709
R.G.B OUT
R G B
RV703 G-DRIVE
RV704 R-DRIVE
C (R.G.B OUT)
V901 PICTURE TUBE
H G2
HV
HVR
VM (VM AMP)
VM-85
Q.P.+
Q.P.−
C.PROTECT Q756,757
+28V
VM-78
VM IN
VM AMP Q751−753
VM OUT Q754,755
VM OUT
VM COIL
D (JUNGL, 50/60 SW, PIN AMP. H V OUT, COMPAPATOR.)
PIC.ABL. OUT Q1608
IC501 JUNGLE
V. ZOOMING Q502
V RAMP GEN
VCR
SCP OUT
MUTING 50/60
O2
FBP IN
HD OUT
V-BLK OUT
VIDEO IN
SAFETY IN
O1
VCO OUT
VCO IN
SAFETY V-BLK
VD OUT
CF501
VIDEO AMP Q591
+B DET-2 D807
+B1 DET D806
Q.P. DRIVE Q1653
IC502 V OUT
REF
IN
OUT
RV1507 V. SIZE
RV1509 V. ANGLE
50/60LIN SW Q509,510
+12V
VCENT Q505,506
RV1506 V.CENT
D-85
D-83
+V DY
+H DY
−H DY
−V DY
DY
D-84
CY−
CY+
IC1701 COMPARATOR
CORRENT AMP Q1708
D1708
CONT SW Q1704
INVETURE Q1703
CURRENT SOURCE Q1705
DC CLUMP Q1706
IC1702 FUNCTION
V.PARABOLA OUT Q1707
RV1504 H.SIZE
FBP BUFF-1 Q1701
RV1701 H TILT
IC1501 PIN OUT
PIN DRIVE PIN OUT Q1551,1552
X IN 2
X IN 1
X OUT
COMP
RV1505 CORNE COR
RV1503 PIN AMP
VP AMP Q1717
VP BUFF Q1712
V.PARA.EQ Q1711
V.PARABOLA Q1709
Y-BUE SW Q1716
RV1705 Y. CROSS
RV1702 Y. BOW
D1709
H. AMP Q1710
RV1703 C. BOW
D1710
RV1704 H. AMP
CND801 H.CENT
D804
D805
H DRIVE Q805
T801 H.D.T
+200V
28V RECT D801
+28V
15V RECT D850
+15V
200V RECT D802
T802 F.B.T
H.OUT Q804
G2 RECT D803
D-81
H, H2
H V
F V
D-82
G2

5-4. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NON-FLAMMABLE CARBON
	: FUSE	NON-FLAMMABLE FUSIBLE
	: RS	NON-FLAMMABLE METALOXIDE
	: RB	NON-FLAMMABLE CEMENT
	: RW	NON-FLAMMABLE WIREWOUND
	: ※	VARIABLE RESISTOR
COIL	: LF-8L	MINIATURE INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note:
Components identified by shading and marked ⚠ are critical for safety. Replace only with the part number specified.

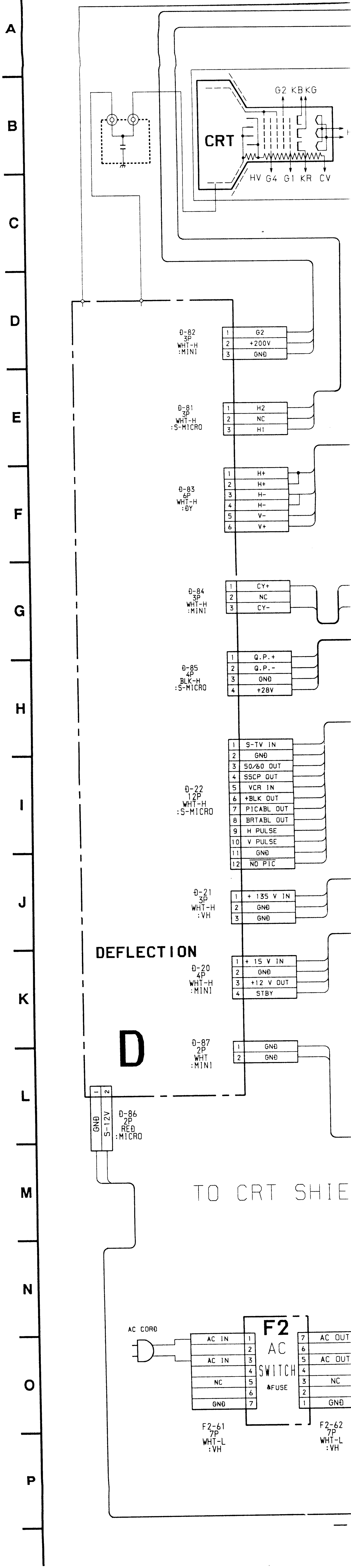
5-5. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

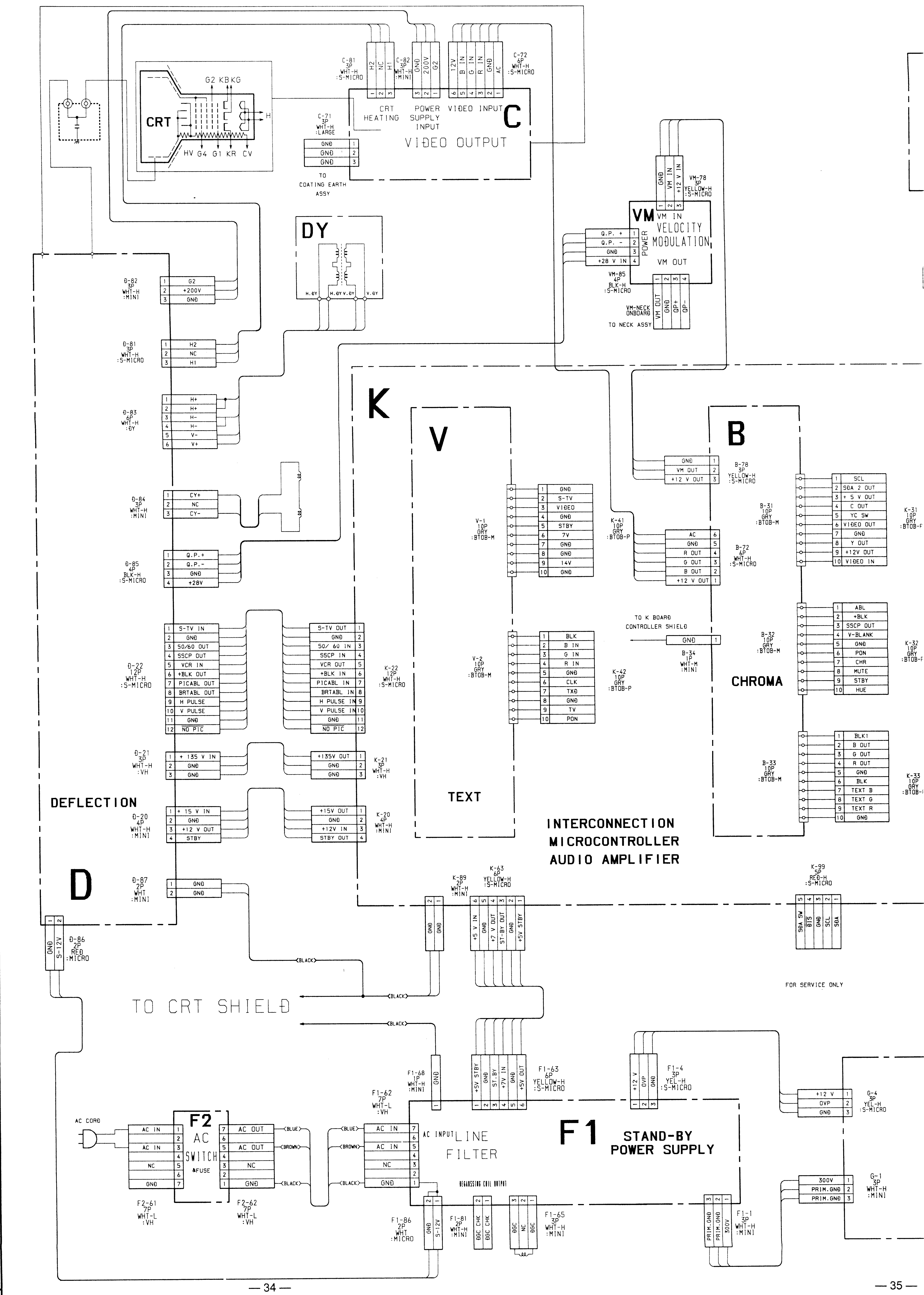
- All capacitors are in μF unless otherwise stated (p=pF). Working voltage of 50V or less are not indicated, except for electrolytics.
- Resistors which do not hane a power rating value shown are as follows.

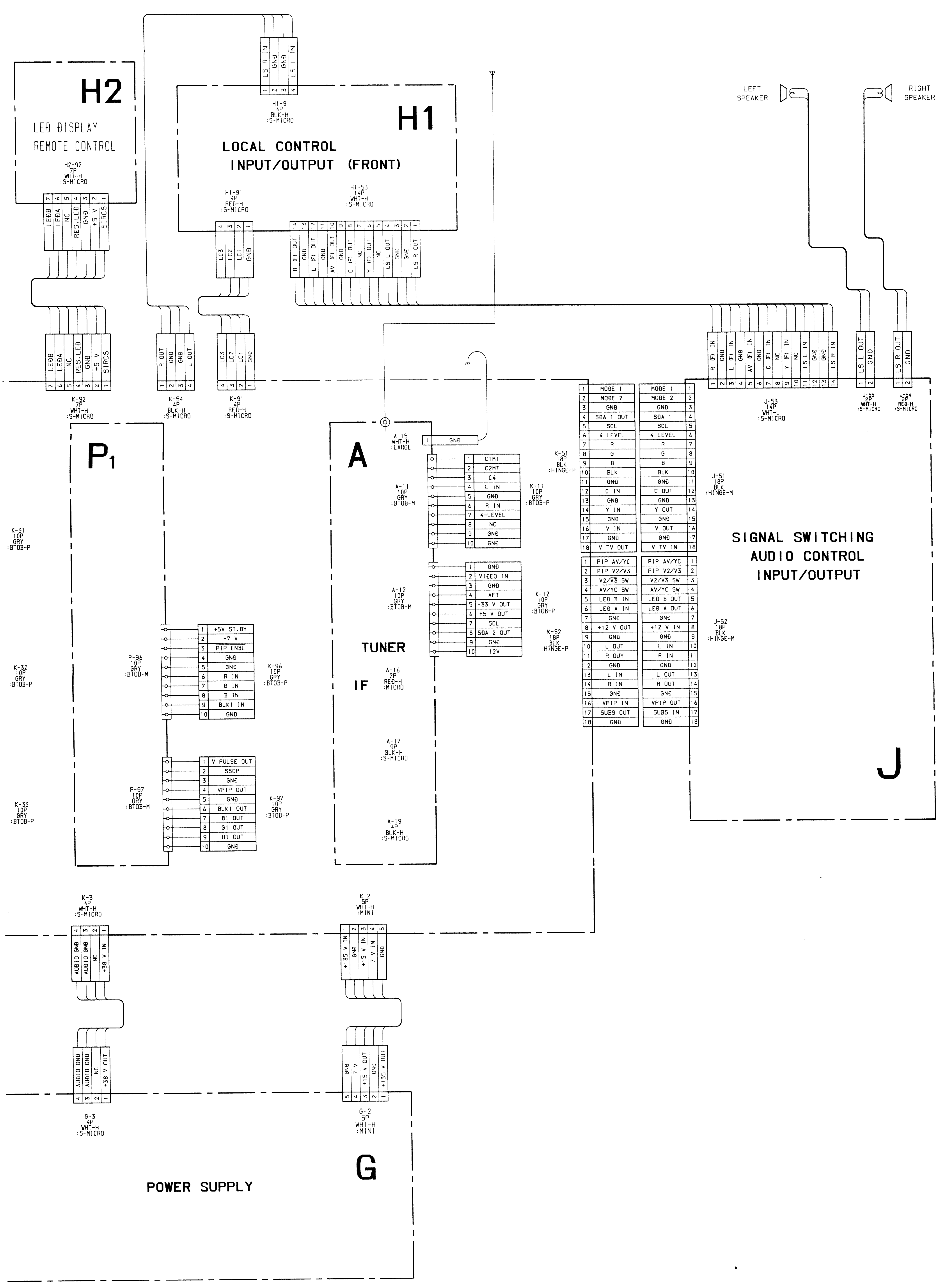
  Pitch: 5 mm
  Power rating: 1/4W
- Chip resistors are 1/10W.
- All resistor values are in Ohms. kΩ=1000Ω, MΩ=1000kΩ.
- ▭: nonflammable resistor.
- ▭: fusible resistor.
- △: internal component.
- ☐: panel outline or servicing adjustment.
- All variable and adjustable resistors have characteristic curve B. unless otherwise noted.
- All voltages shown are in Volts.
- Readings were taken with a 10 MΩ digital multimeter.
- Readings were taken with a colour-bar signal input.
- Voltage variations may be occur to normal production tolerance.
- ▬: Voltage supply rails.
- ▨: Signal path.

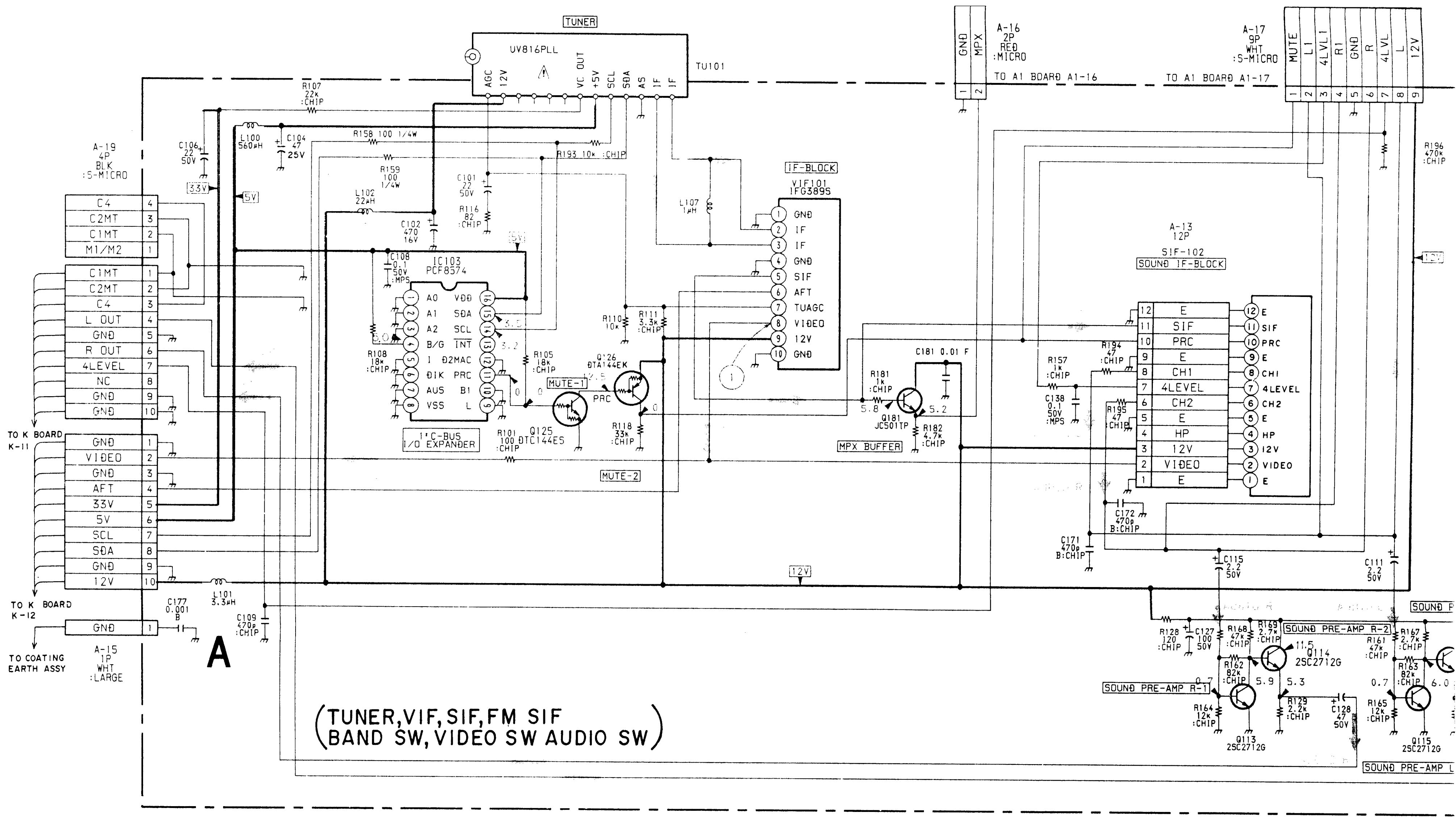
FRAME WIRING DIAGRAM



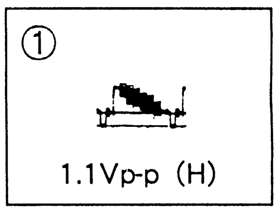
FRAME WIRING DIAGRAM

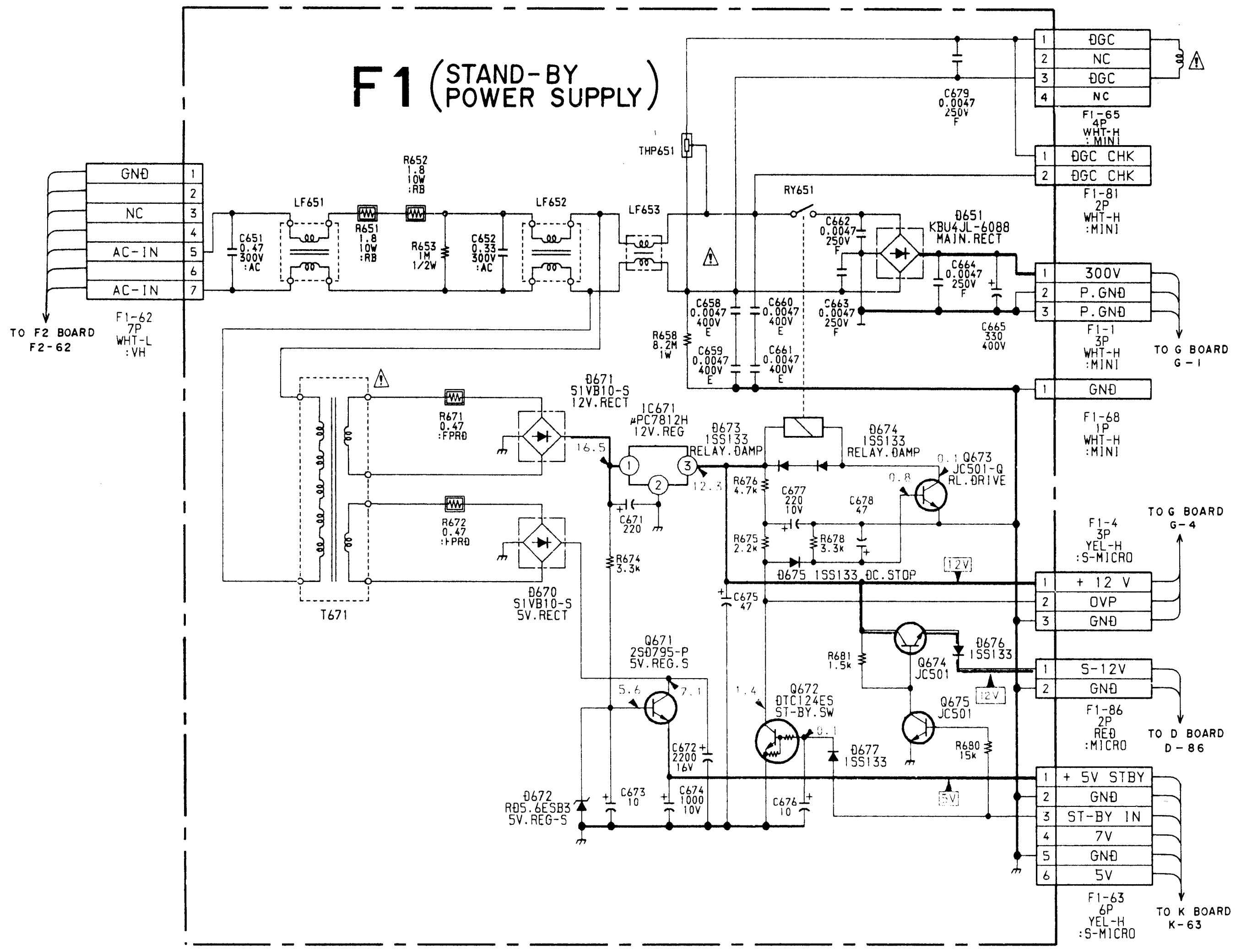



H2
LED DISPLAY
REMOTE CONTROL
H2-92 7P WHT-H :S-MICRO
LEDB LEDA NC RES.LED GND +5 V SIRCS
H1
LOCAL CONTROL
INPUT/OUTPUT (FRONT)
H1-9 4P BLK-H :S-MICRO
LS R IN GND GND LS L IN
H1-91 4P RED-H :S-MICRO
LC3 LC2 LC1 GND
H1-S3 14P WHT-H :S-MICRO
R (F) OUT GND L (F) OUT GND AV (F) OUT GND C (F) OUT NC Y (F) OUT NC LS L OUT GND GND LS R OUT
LEFT SPEAKER
RIGHT SPEAKER
K-92 7P WHT-H :S-MICRO
K-54 4P BLK-H :S-MICRO
R OUT GND GND L OUT
K-91 4P RED-H :S-MICRO
J-53 14P WHT-L :S-MICRO
R (F) IN GND L (F) IN GND AV (F) IN GND C (F) IN NC Y (F) IN NC LS L IN GND GND LS R IN
J-55 2P WHT-H :S-MICRO
LS L OUT GND
J-54 2P RED-H :S-MICRO
LS R OUT GND
P1
K-31 10P GRY :BTOB-P
K-32 10P GRY :BTOB-P
K-33 10P GRY :BTOB-P
P-96 10P GRY :BTOB-M
K-96 10P GRY :BTOB-P
1 +5V ST.BY
2 +7 V
3 PIP ENBL
4 GND
5 GND
6 R IN
7 G IN
8 B IN
9 BLK1 IN
10 GND
P-97 10P GRY :BTOB-M
K-97 10P GRY :BTOB-P
1 V PULSE OUT
2 SSCP
3 GND
4 VPIP OUT
5 GND
6 BLK1 OUT
7 B1 OUT
8 G1 OUT
9 R1 OUT
10 GND
A
TUNER
IF
A-15 WHT-H :LARGE
1 GND
A-11 10P GRY :BTOB-M
K-11 10P GRY :BTOB-P
1 C1MT
2 C2MT
3 C4
4 L IN
5 GND
6 R IN
7 4-LEVEL
8 NC
9 GND
10 GND
A-12 10P GRY :BTOB-M
K-12 10P GRY :BTOB-P
1 GND
2 VIDEO IN
3 GND
4 AFT
5 +33 V OUT
6 +5 V OUT
7 SCL
8 SDA 2 OUT
9 GND
10 12V
A-16 2P RED-H :MICRO
A-17 9P BLK-H :S-MICRO
A-19 4P BLK-H :S-MICRO
K-51 18P BLK :HINGE-P
1 MODE 1
2 MODE 2
3 GND
4 SDA 1 OUT
5 SCL
6 4 LEVEL
7 R
8 G
9 B
10 BLK
11 GND
12 C IN
13 GND
14 Y IN
15 GND
16 V IN
17 GND
18 V TV OUT
J-51 18P BLK :HINGE-M
1 MODE 1
2 MODE 2
3 GND
4 SDA 1
5 SCL
6 4 LEVEL
7 R
8 G
9 B
10 BLK
11 GND
12 C OUT
13 GND
14 Y OUT
15 GND
16 V OUT
17 GND
18 V TV IN
K-52 18P BLK :HINGE-P
1 PIP AV/YC
2 PIP V2/V3
3 V2/V3 SW
4 AV/YC SW
5 LED B IN
6 LED A IN
7 GND
8 +12 V OUT
9 GND
10 L OUT
11 R OUY
12 GND
13 L IN
14 R IN
15 GND
16 VPIP IN
17 SUBS OUT
18 GND
J-52 18P BLK :HINGE-M
1 PIP AV/YC
2 PIP V2/V3
3 V2/V3 SW
4 AV/YC SW
5 LED B OUT
6 LED A OUT
7 GND
8 +12 V IN
9 GND
10 L IN
11 R IN
12 GND
13 L OUT
14 R OUT
15 GND
16 VPIP OUT
17 SUBS IN
18 GND
SIGNAL SWITCHING
AUDIO CONTROL
INPUT/OUTPUT
J
K-3 4P WHT-H :S-MICRO
AUDIO GND AUDIO GND NC +38 V IN
K-2 5P WHT-H :MINI
+135 V IN GND +15 V IN 7 V IN GND
G-3 4P WHT-H :S-MICRO
AUDIO GND AUDIO GND NC +38 V OUT
G-2 5P WHT-H :MINI
GND 7 V +15 V OUT GND +135 V OUT
G
POWER SUPPLY

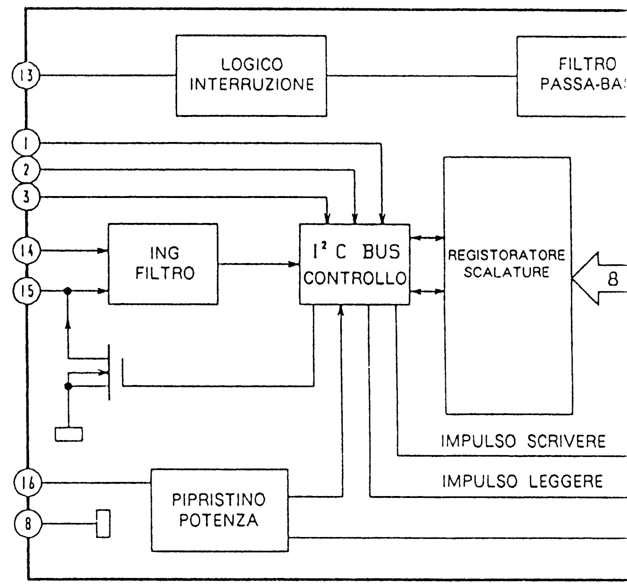


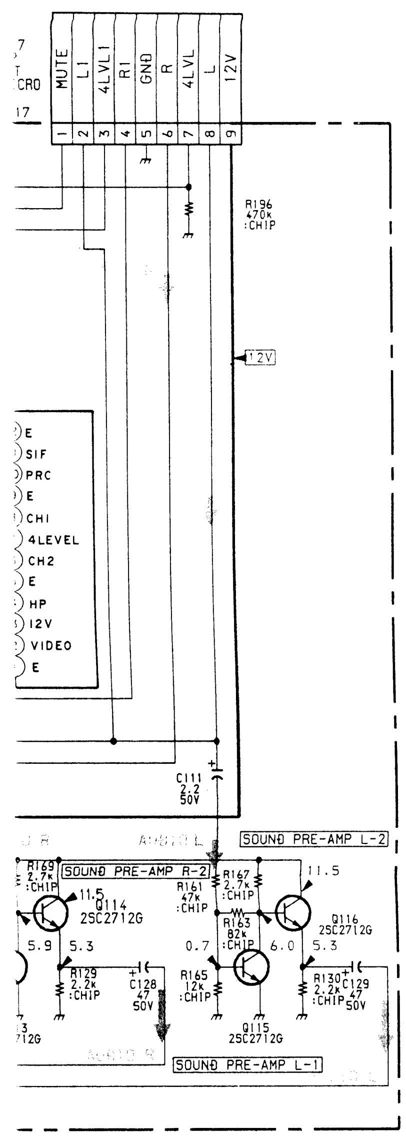
WAVEFORMS OF BOARD A

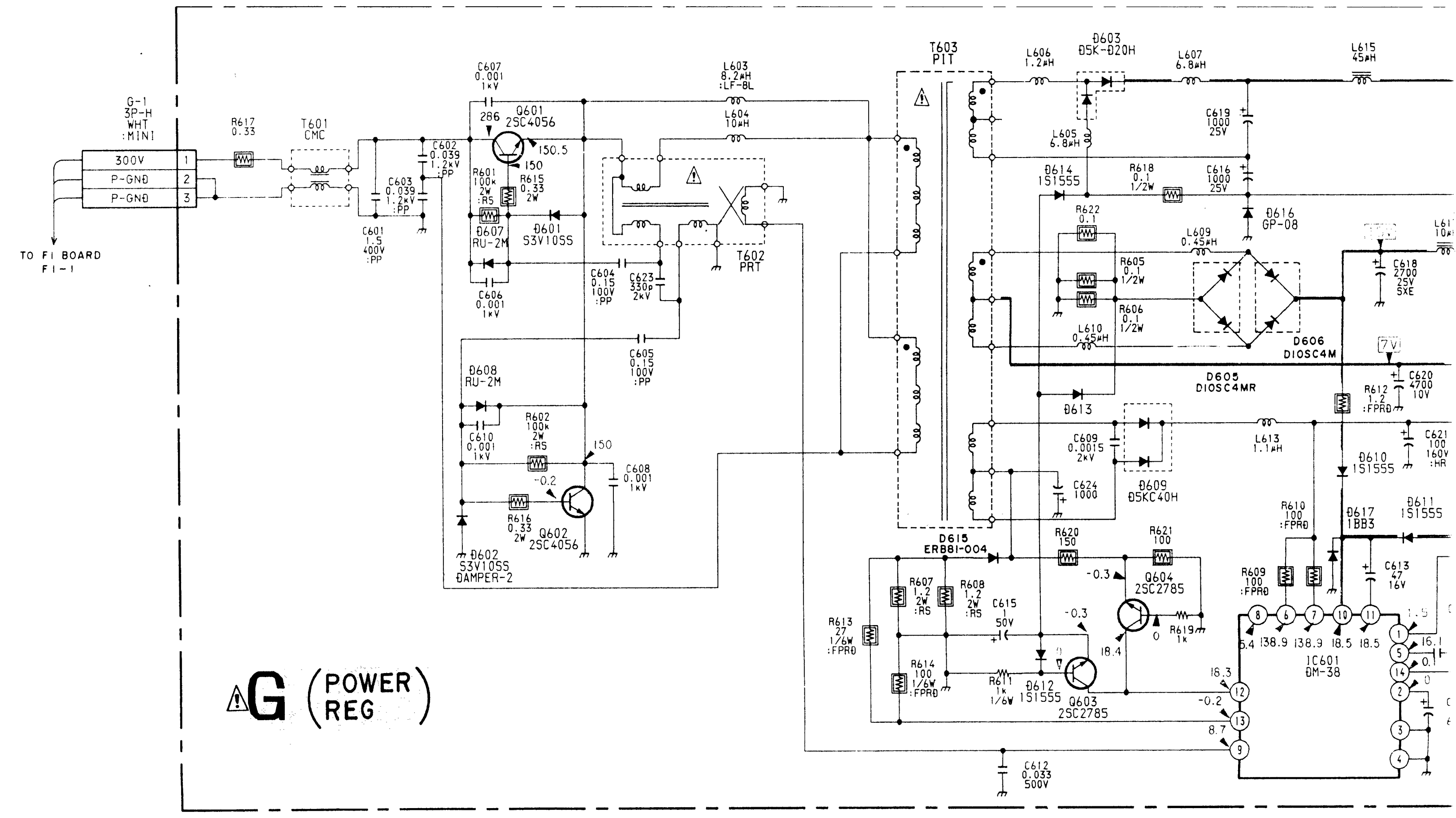


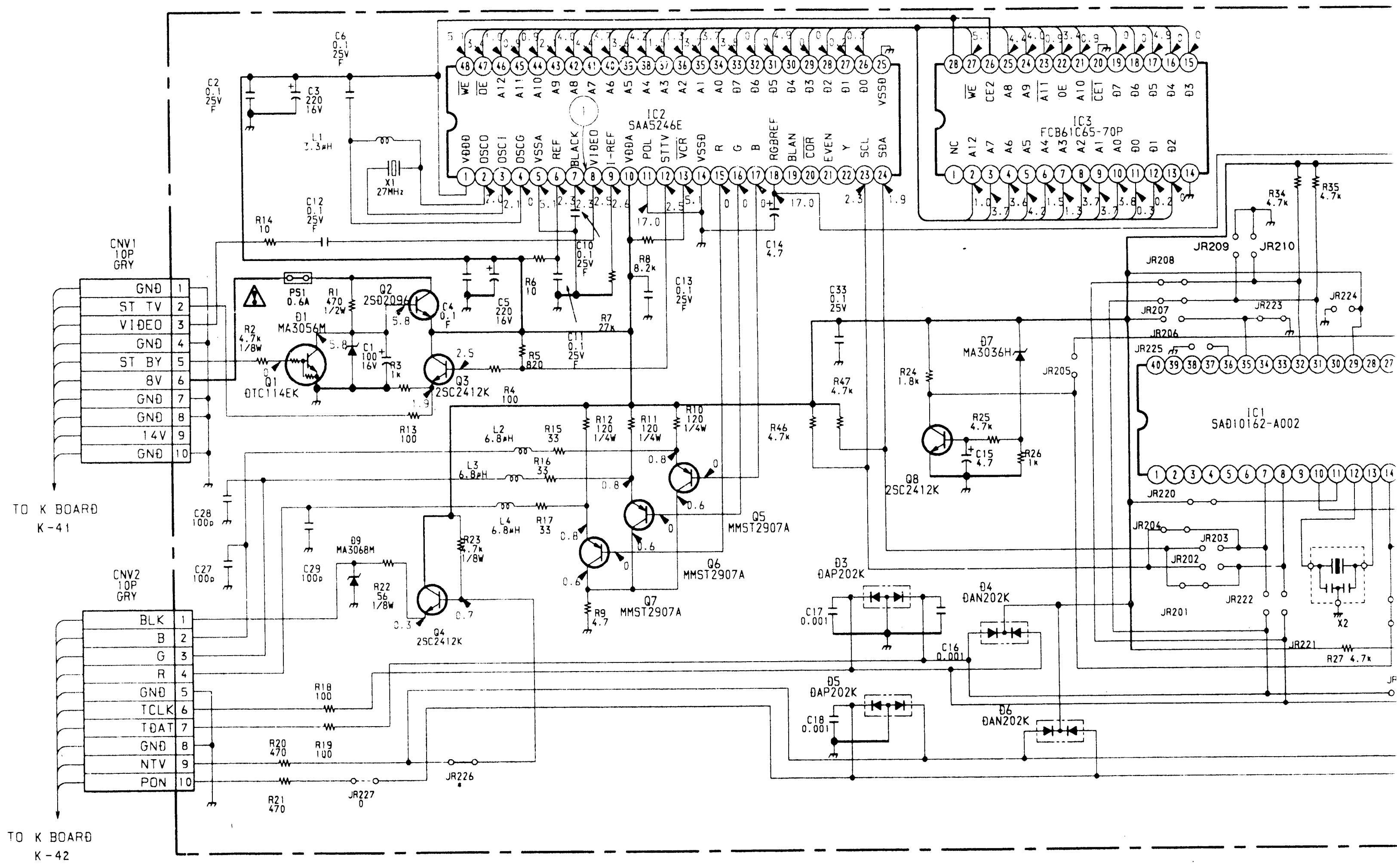


A BOARD IC103 PCF8574



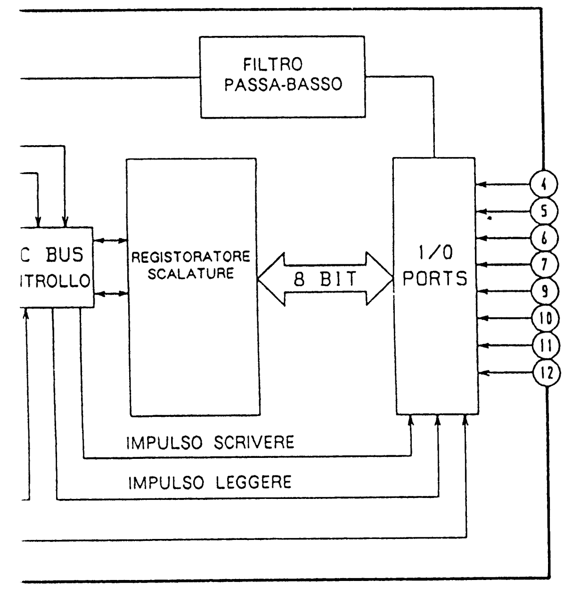

MUTE
L1
4LVL1
R1
GND
R
4LVL
L
12V
R196 470k :CHIP
12V
E
SIF
PRC
E
CH1
4LEVEL
CH2
E
HP
12V
VIDEO
E
C111 2.2 50V
SOUND PRE-AMP L-2
SOUND PRE-AMP R-2
Q114 2SC2712G
Q116 2SC2712G
Q115 2SC2712G
R161 47k :CHIP
R163 82k :CHIP
R165 12k :CHIP
R167 2.7k :CHIP
R169 2.7k :CHIP
R129 2.2k :CHIP
R130 2.2k :CHIP
C128 47 50V
C129 47 50V
SOUND PRE-AMP L-1

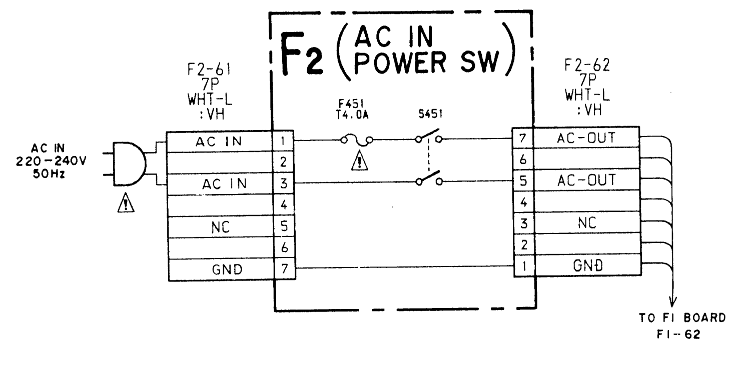

G (POWER REG)
G-1 3P-H WHT :MINI
300V
P-GND
P-GND
TO F1 BOARD F1-1
R617 0.33
T601 CMC
C601 1.5 400V :PP
C602 0.039 1.2kV :PP
C603 0.039 1.2kV :PP
C607 0.001 1kV
Q601 2SC4056
R601 100k 2W :RS
R615 0.33 2W
D607 RU-2M
D601 S3V10SS
C606 0.001 1kV
C604 0.15 100V :PP
C623 330p 2kV
L603 8.2μH :LF-8L
L604 10μH
T602 PRT
C605 0.15 100V :PP
D608 RU-2M
C610 0.001 1kV
R602 100k 2W :RS
R616 0.33 2W
Q602 2SC4056
C608 0.001 1kV
D602 S3V10SS DAMPER-2
T603 PIT
D615 ERB81-004
L606 1.2μH
D603 D5K-D20H
L607 6.8μH
L605 6.8μH
D614 1S1555
R618 0.1 1/2W
C619 1000 25V
C616 1000 25V
D616 GP-08
L609 0.45μH
R622 0.1
R605 0.1 1/2W
R606 0.1 1/2W
L610 0.45μH
D606 D1OSC4M
D605 D1OSC4MR
D613
C609 0.0015 2kV
C624 1000
D609 D5KC40H
L613 1.1μH
L615 45μH
C618 2700 25V SXE
C620 4700 10V
R612 1.2 :FPRD
C621 100 160V :HR
D610 1S1555
D611 1S1555
D617 1BB3
R610 100 :FPRD
R609 100 :FPRD
C613 47 16V
R620 150
R621 100
Q604 2SC2785
R607 1.2 2W :RS
R608 1.2 2W :RS
C615 50V
R613 27 1/6W :FPRD
R614 100 1/6W :FPRD
R611 1k 1/6W
D612 1S1555
Q603 2SC2785
R619 1k
IC601 DM-38
C612 0.033 500V

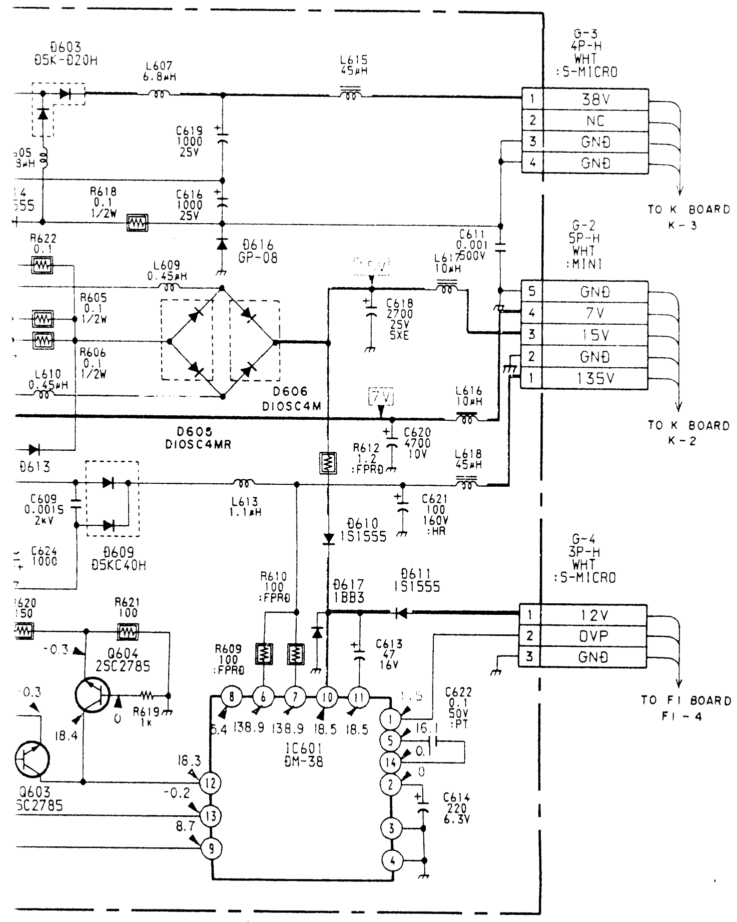

IC2 SAA5246E
IC3 FCB61C65-70P
IC1 SAD10162-A002
CNV1 10P GRY
GND
ST TV
VIDEO
GND
ST BY
8V
GND
GND
14V
GND
TO K BOARD K-41
CNV2 10P GRY
BLK
B
G
R
GND
TCLK
TDAT
GND
NTV
PON
TO K BOARD K-42
PS1 0.6A
D1 MA3056M
Q1 DTC114EK
Q2 2SD2096
Q3 2SC2412K
Q4 2SC2412K
Q5 MMST2907A
Q6 MMST2907A
Q7 MMST2907A
Q8 2SC2412K
X1 27MHz
X2
D3 DAP202K
D4 DAN202K
D5 DAP202K
D6 DAN202K
D7 MA3036H
D9 MA3068M
JR201
JR202
JR203
JR204
JR205
JR206
JR207
JR208
JR209
JR210
JR220
JR221
JR222
JR223
JR224
JR225
JR226
JR227

A

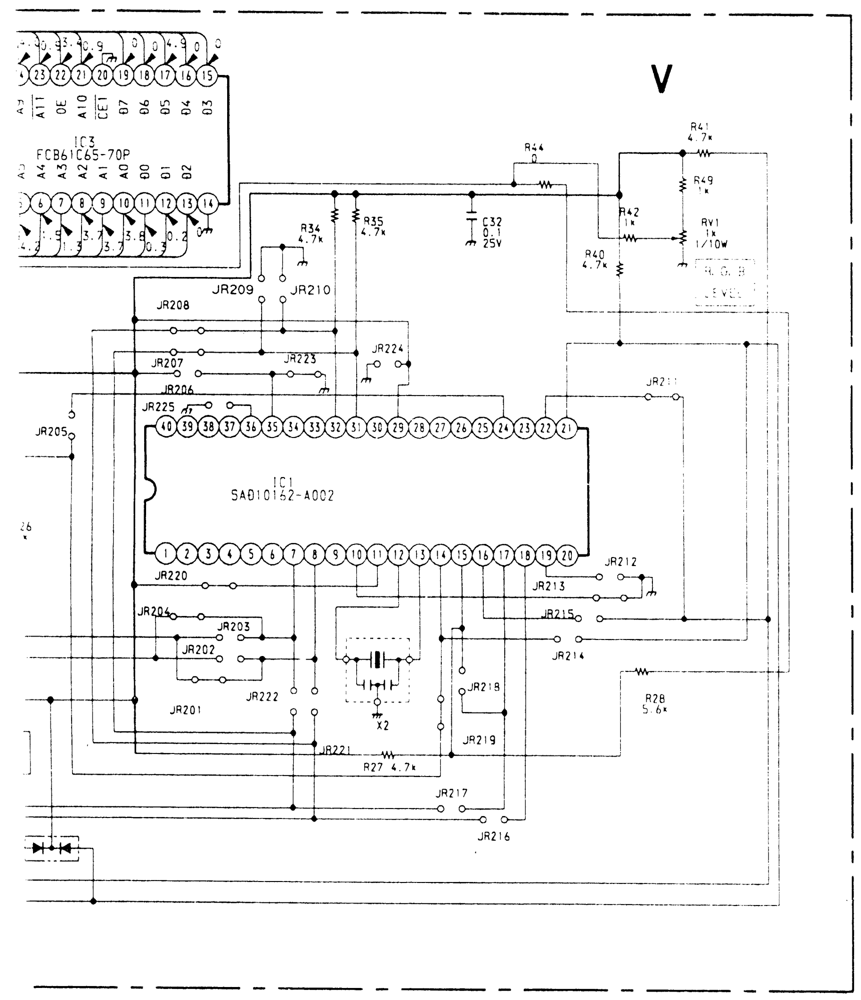
1

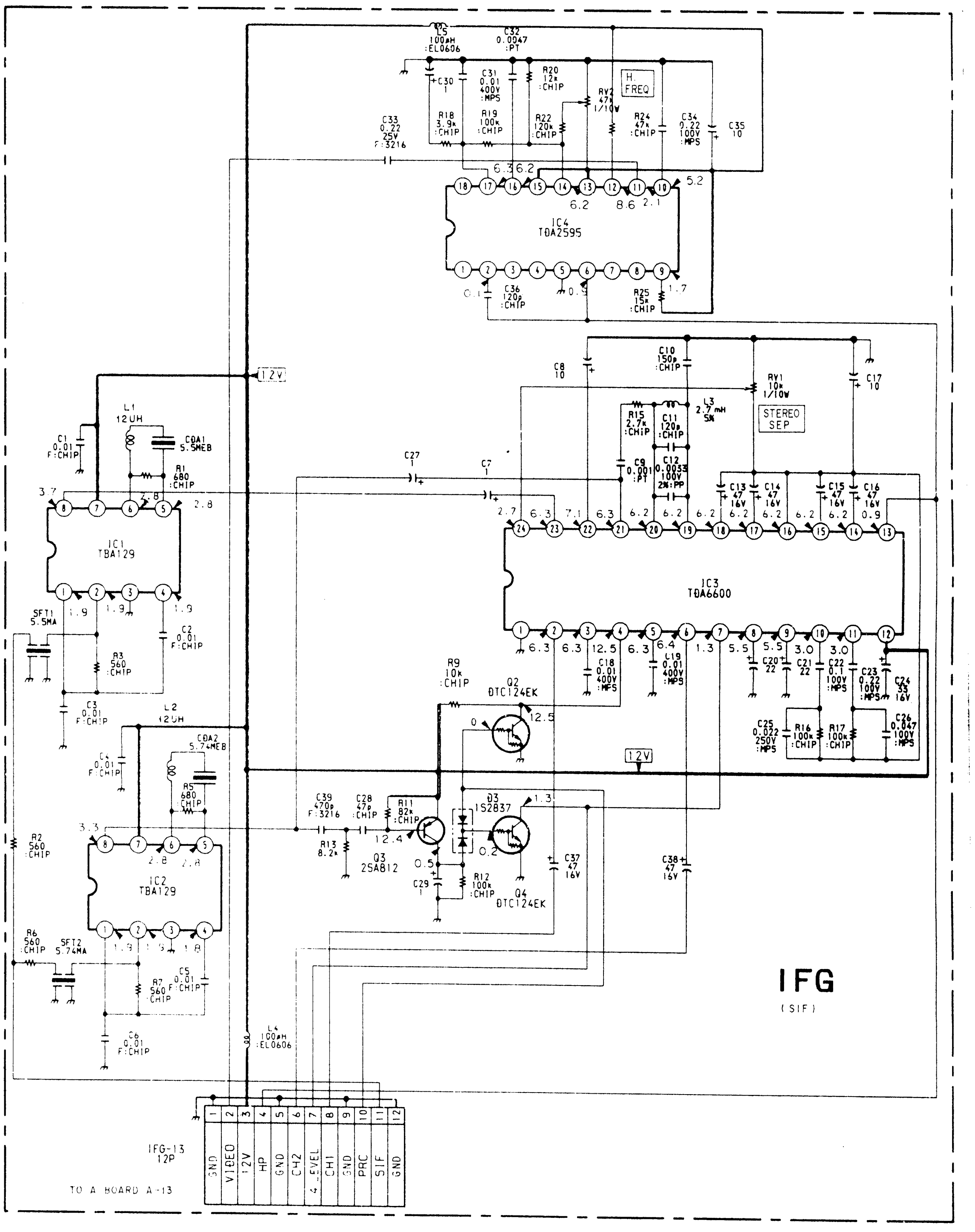

FILTRO PASSA-BASSO
C BUS
ITROLLO
REGISTORATORE SCALATURE
8 BIT
I/O PORTS
IMPULSO SCRIVERE
IMPULSO LEGGERE
4
5
6
7
9
10
11
12


F2 (AC IN POWER SW)
F2-61 7P WHT-L :VH
F2-62 7P WHT-L :VH
AC IN 220-240V 50Hz
F451 T4.0A
S451
AC IN
AC IN
NC
GND
AC-OUT
AC-OUT
NC
GND
TO F1 BOARD F1-62



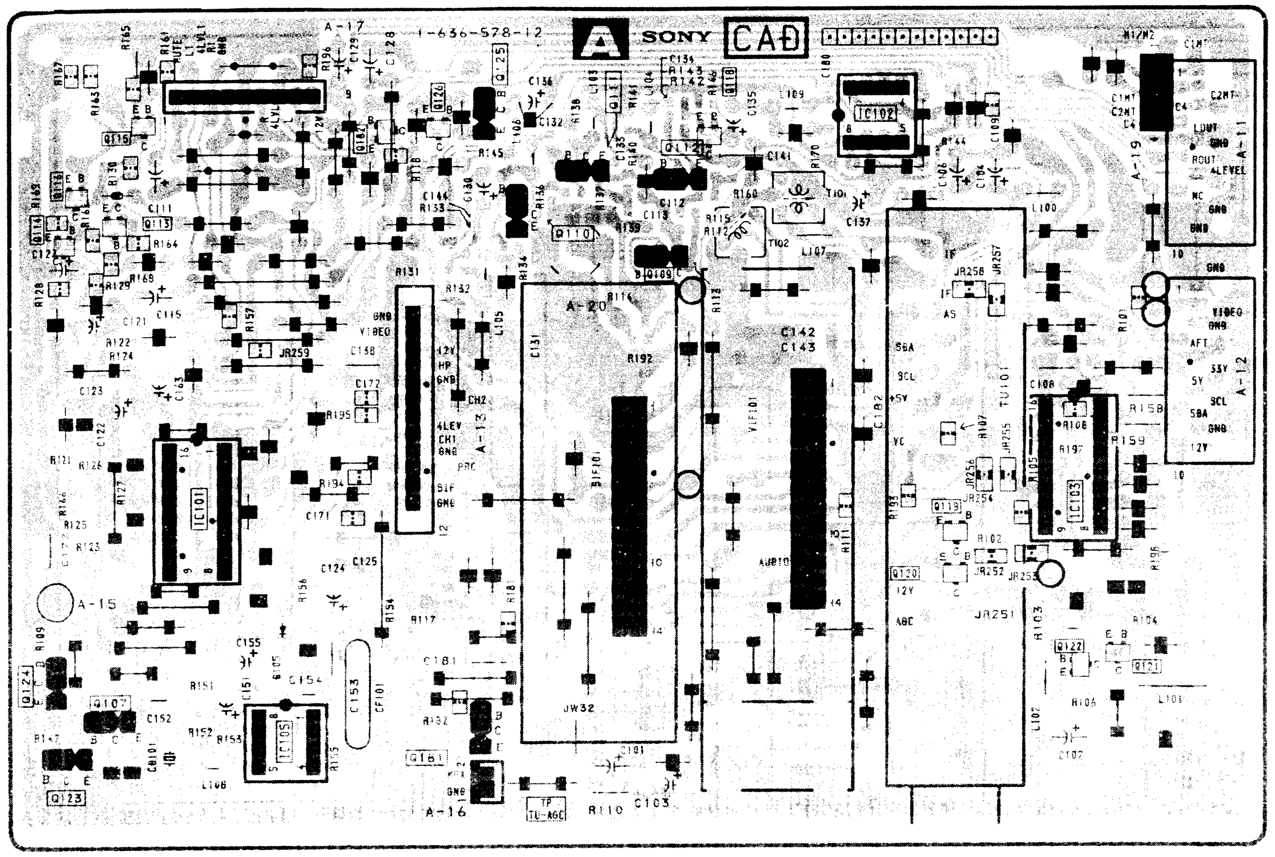
SIF102 IFG5.5S



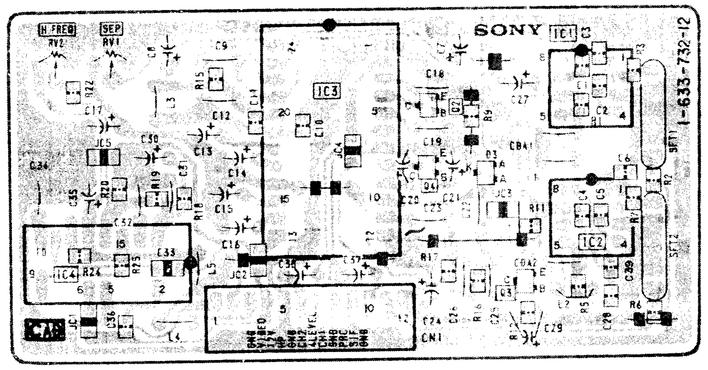


A [TUNER, SIF, VIF] IFG [SIF]

— A Board —

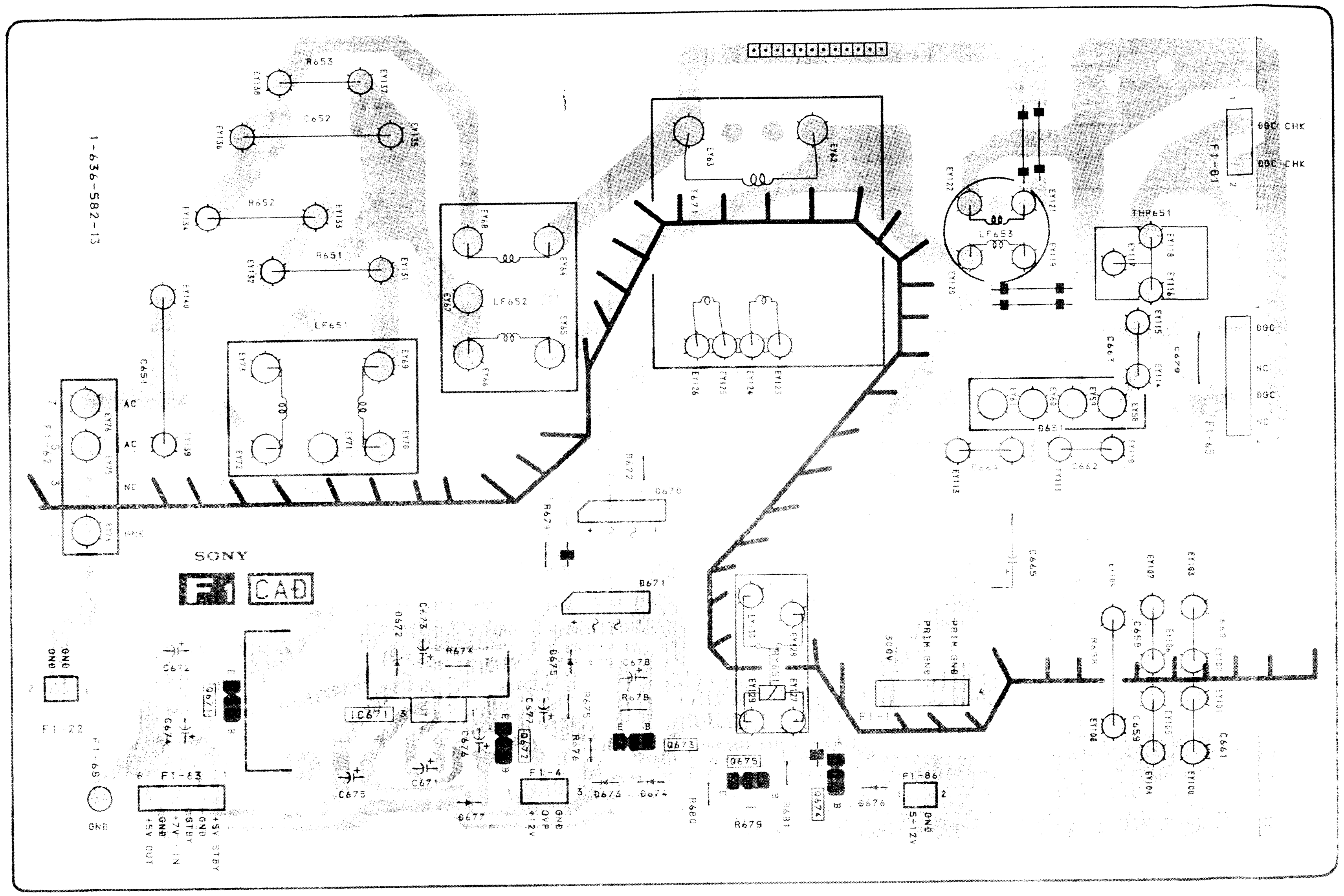


— IFG-55S Board —

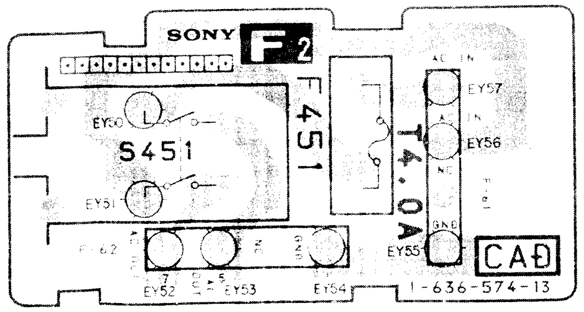


F1 [STAND-BY, POWER SUPPLY] F2 [AC IN, POWER SW]

— F1 Board —



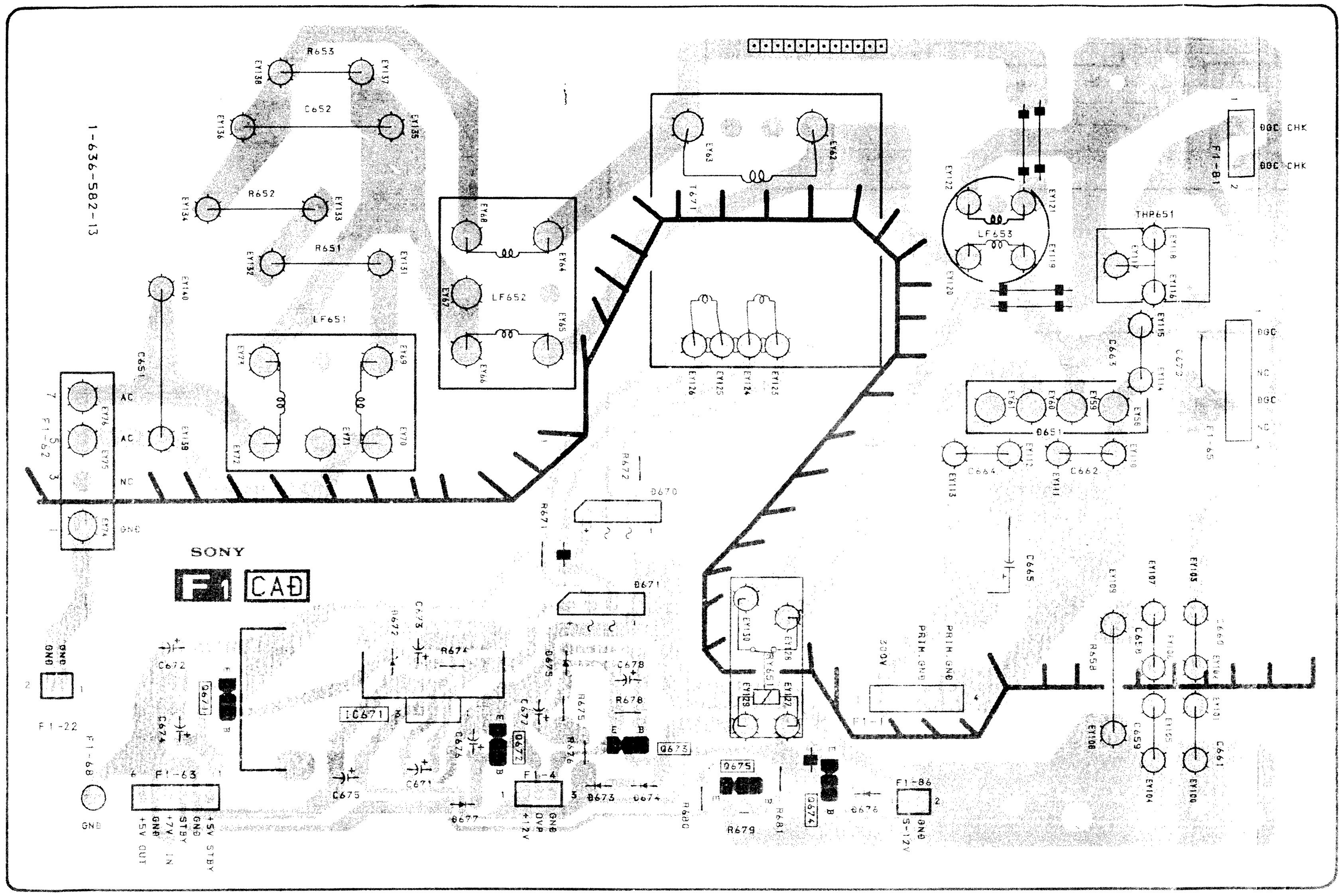
— F2 Board —



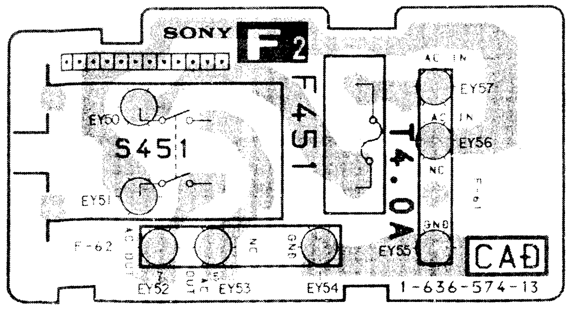
F1 [STAND-BY, POWER SUPPLY]

F2 [AC IN, POWER SW]

— F1 Board —



— F2 Board —

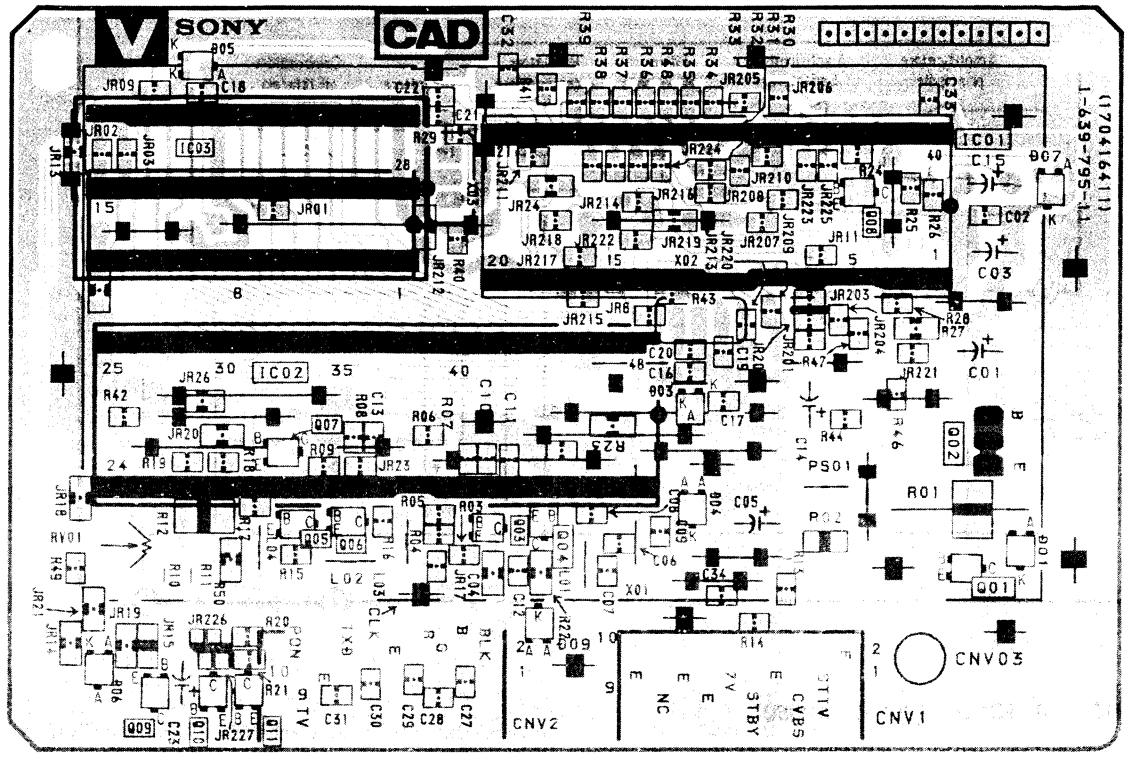


V [TEXT]

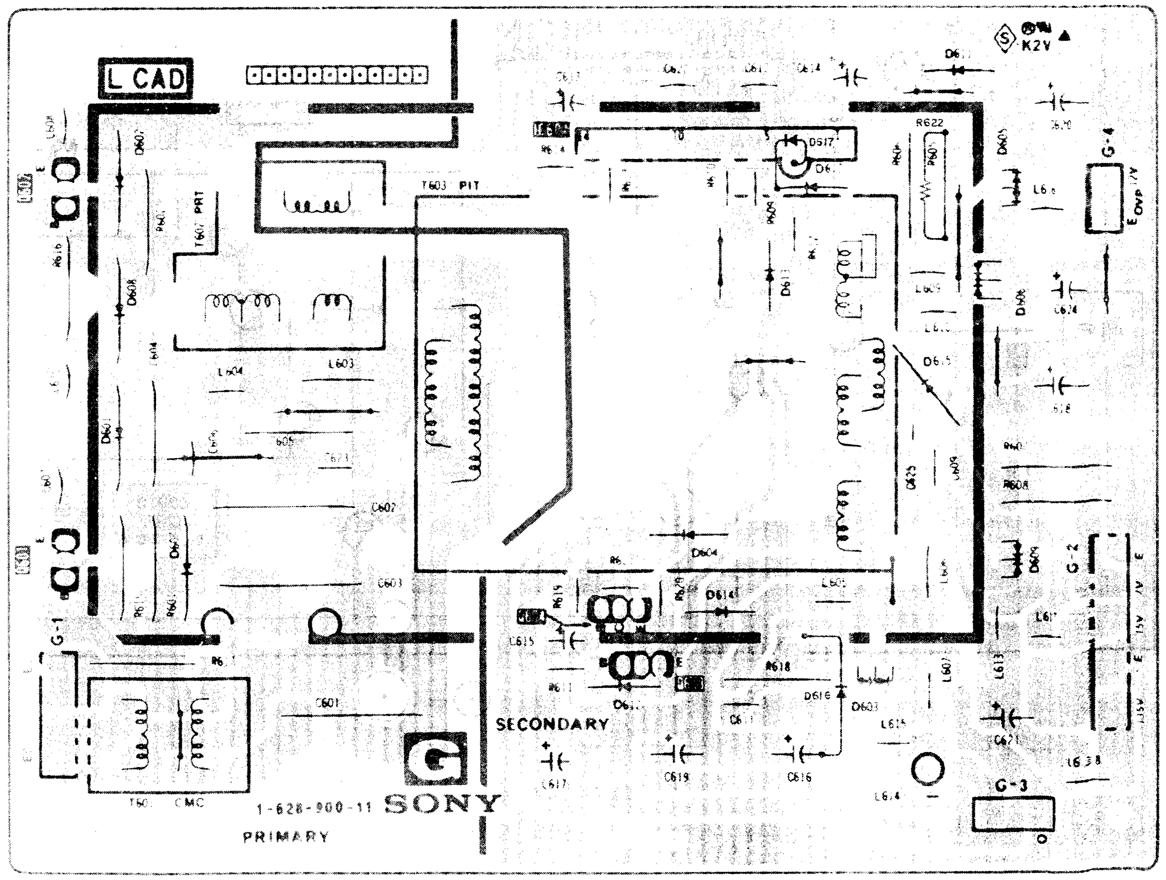
G [POWER, REG]

- ▨ : Pattern from the side which enables seeing.
- ■ : Pattern of the rear side.

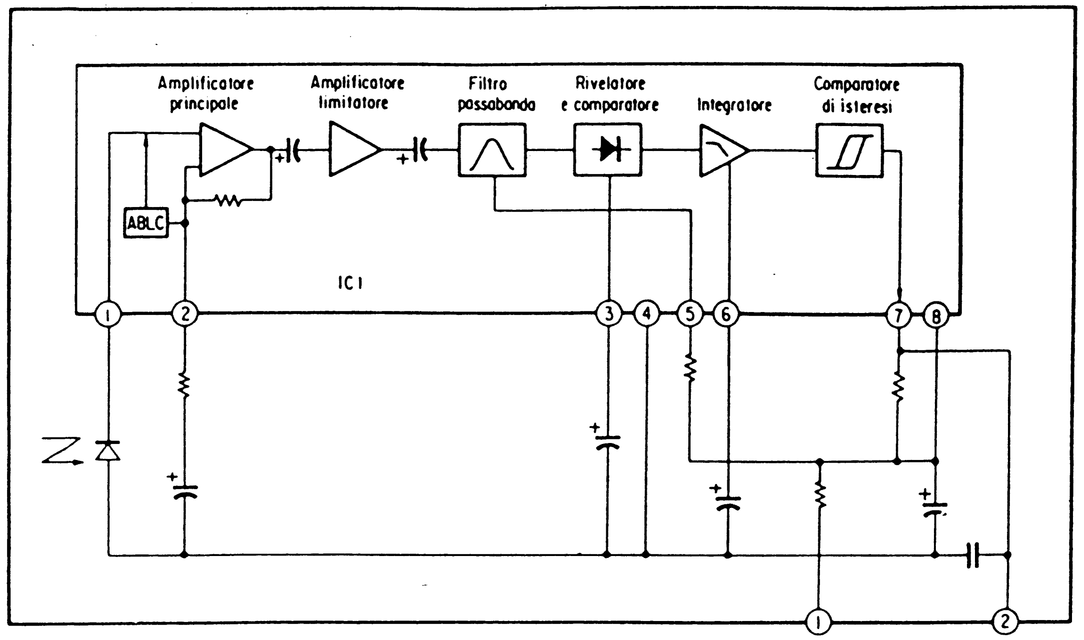
— V Board —



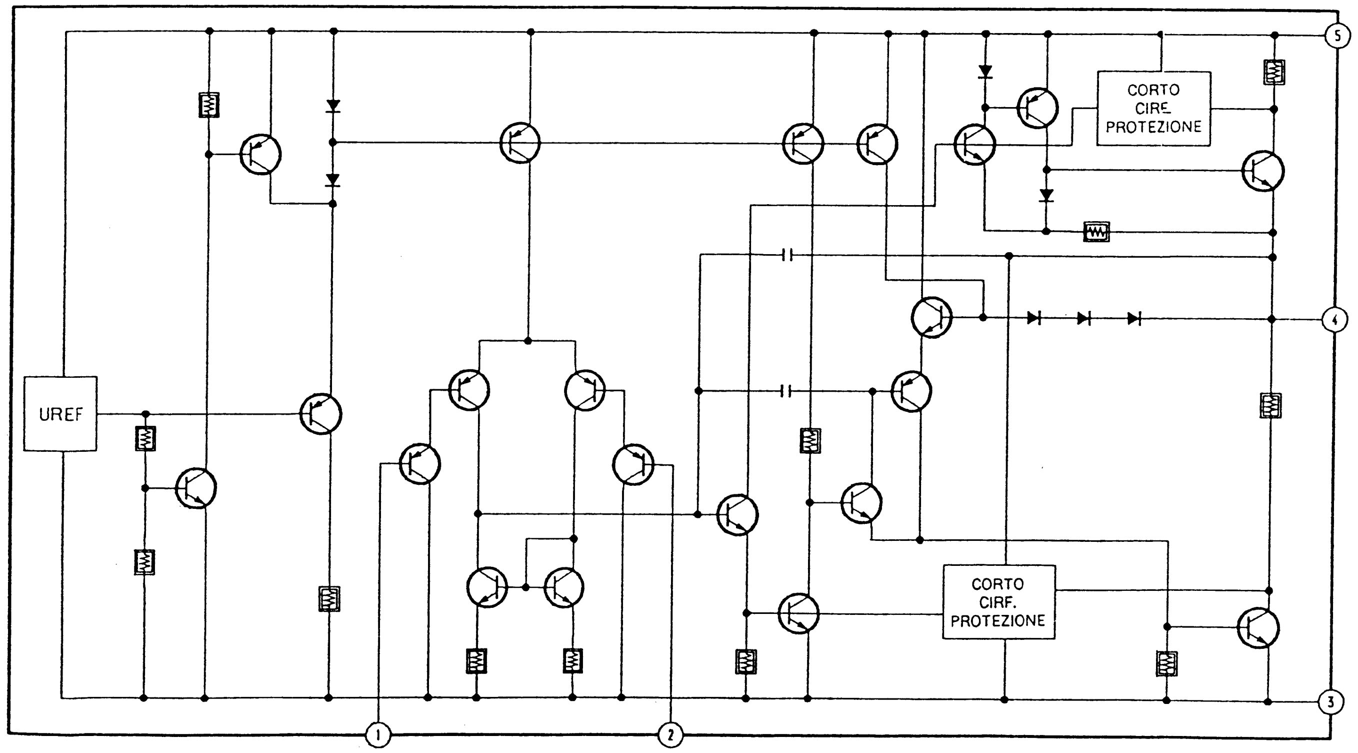
— G Board —



H2 BOARD IC951 BA1387



K BOARD IC1251/1261 TDA2050

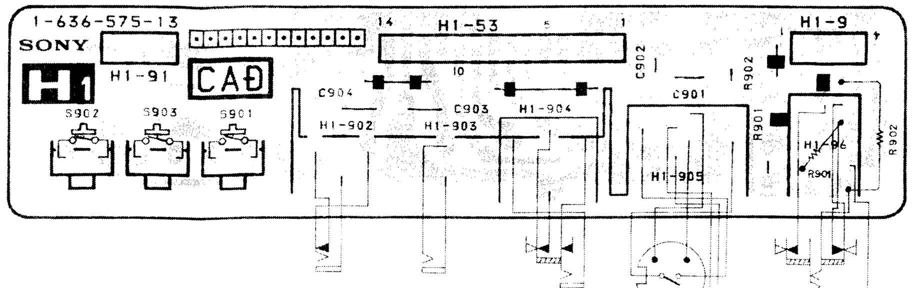


H1 [CONTROL SW, AUDIO/VIDEO IN]

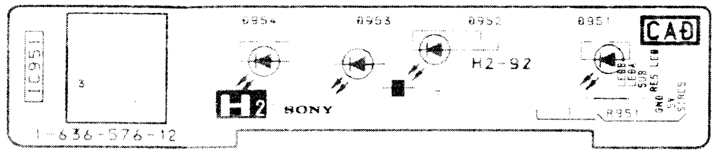
H2 [SIRCS RECEIVER, INDICATOR]

K [PROCESSOR, MEMORY, INPUT MULTPLEXER, I²C SW, PIP ENABLE AUDIO AMP L/R]

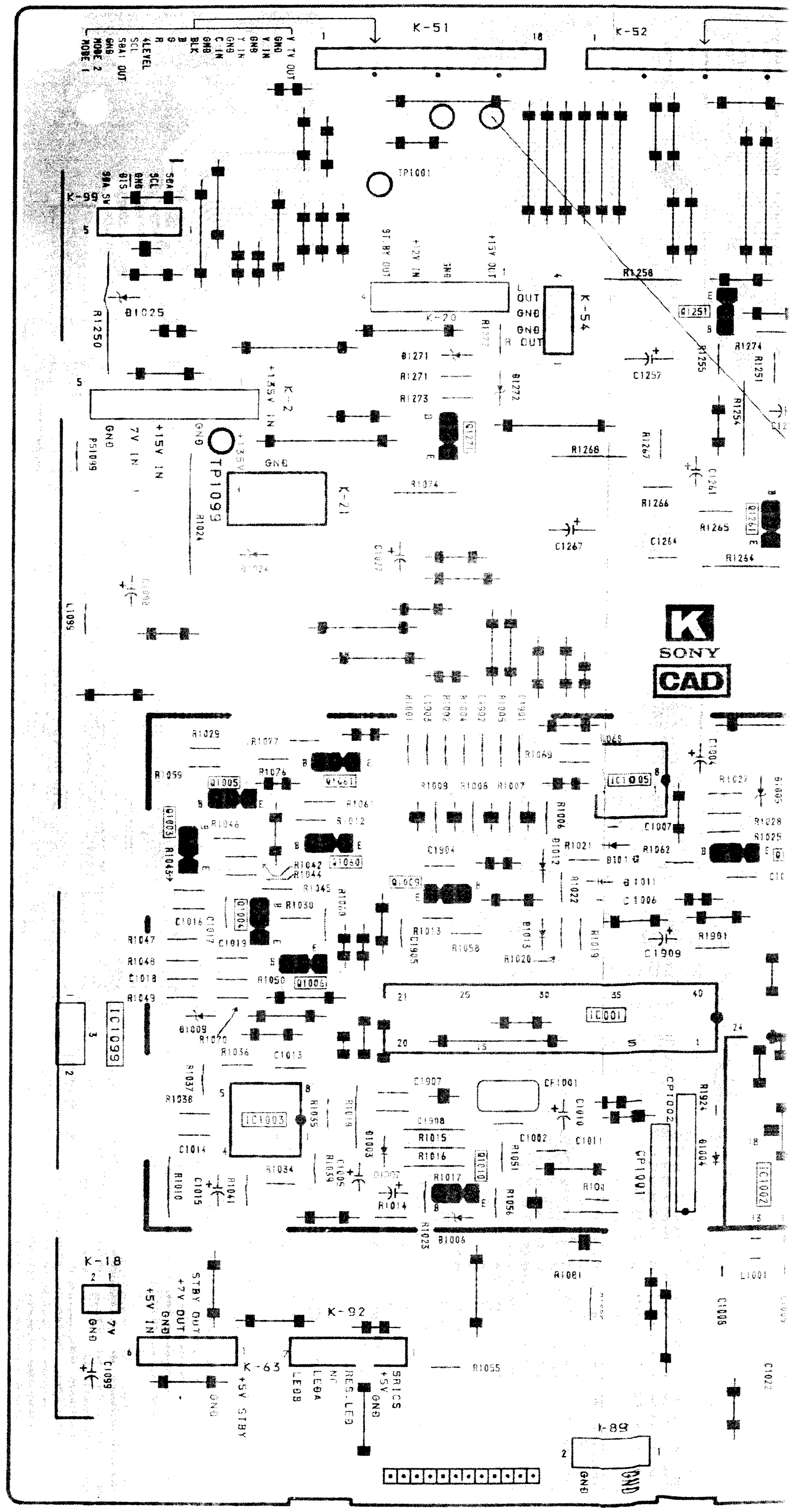
— H1 Board —



— H2 Board —



— K Board —

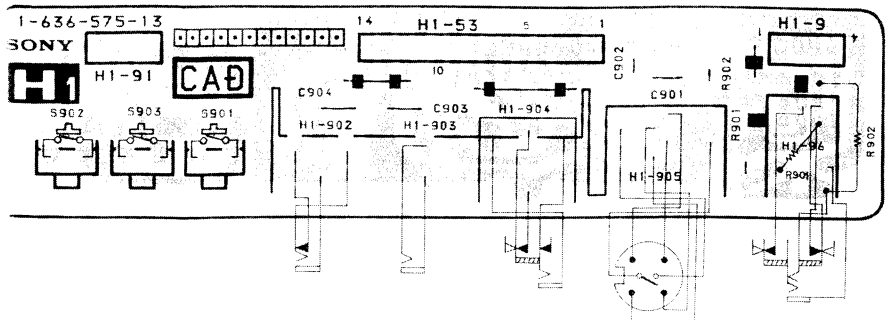


H1 [CONTROL SW, AUDIO/VIDEO IN]

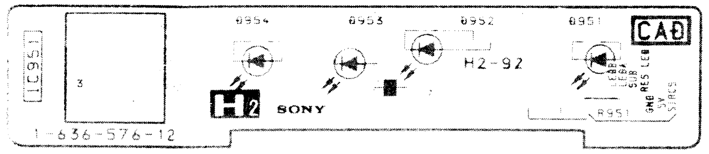
H2 [SIRCS RECEIVER, INDICATOR]

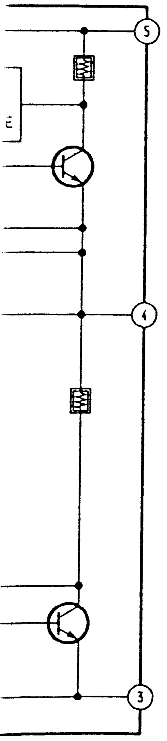
K [PROCESSOR, MEMORY, INPUT MULTPLEXER, I²C SW, PIP ENABLE AUDIO AMP L/R]

— H1 Board —

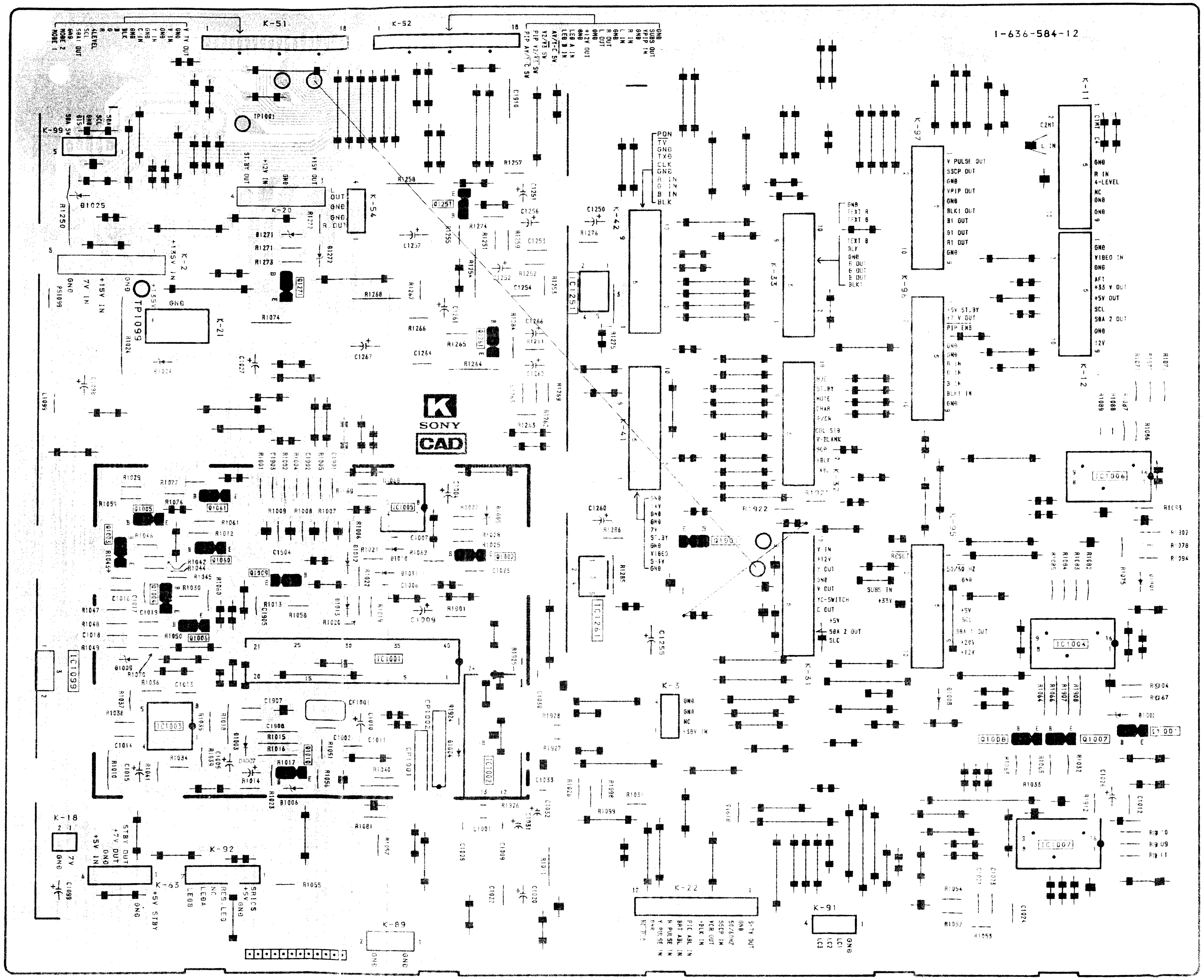


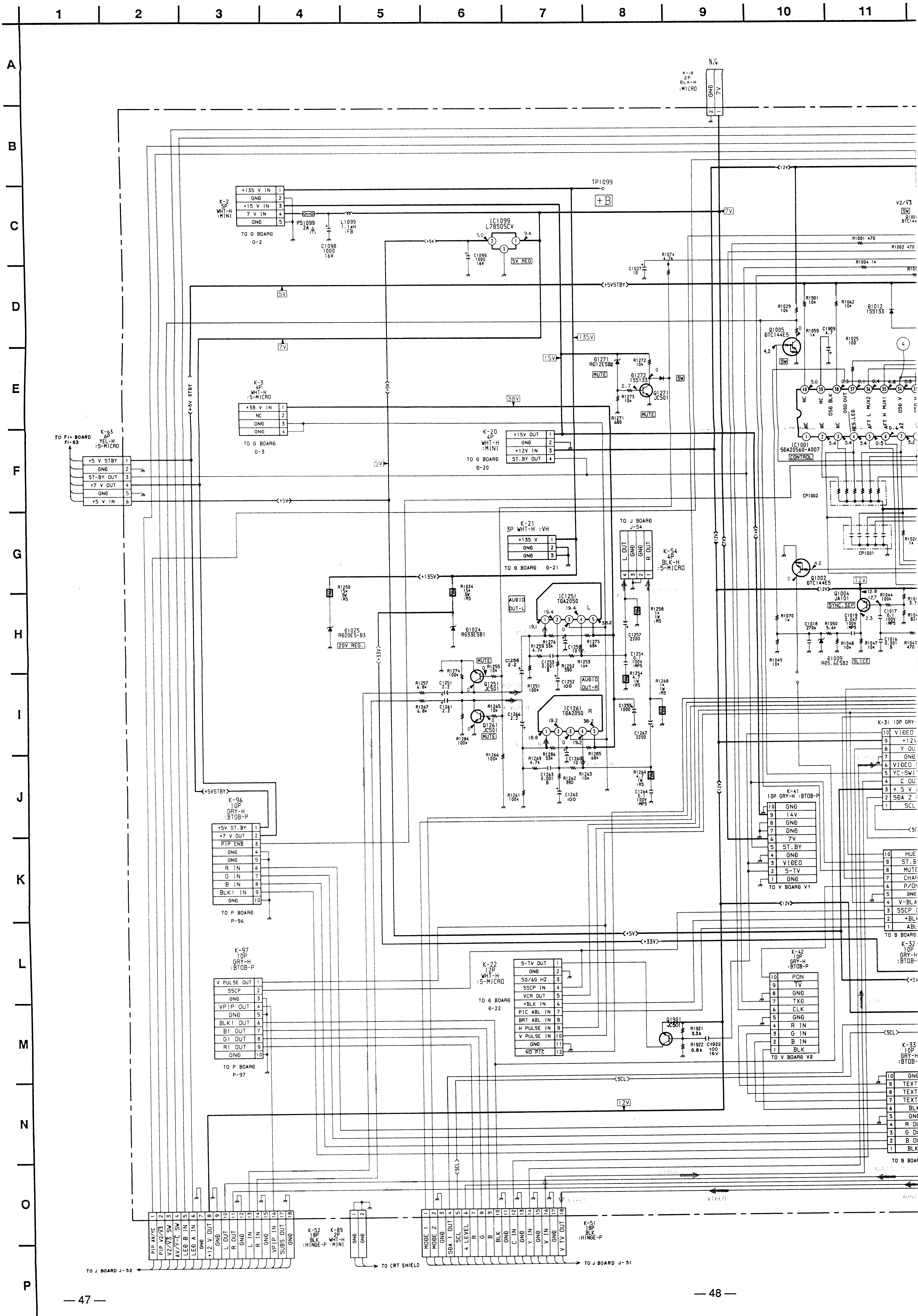
— H2 Board —





— K Board —




1
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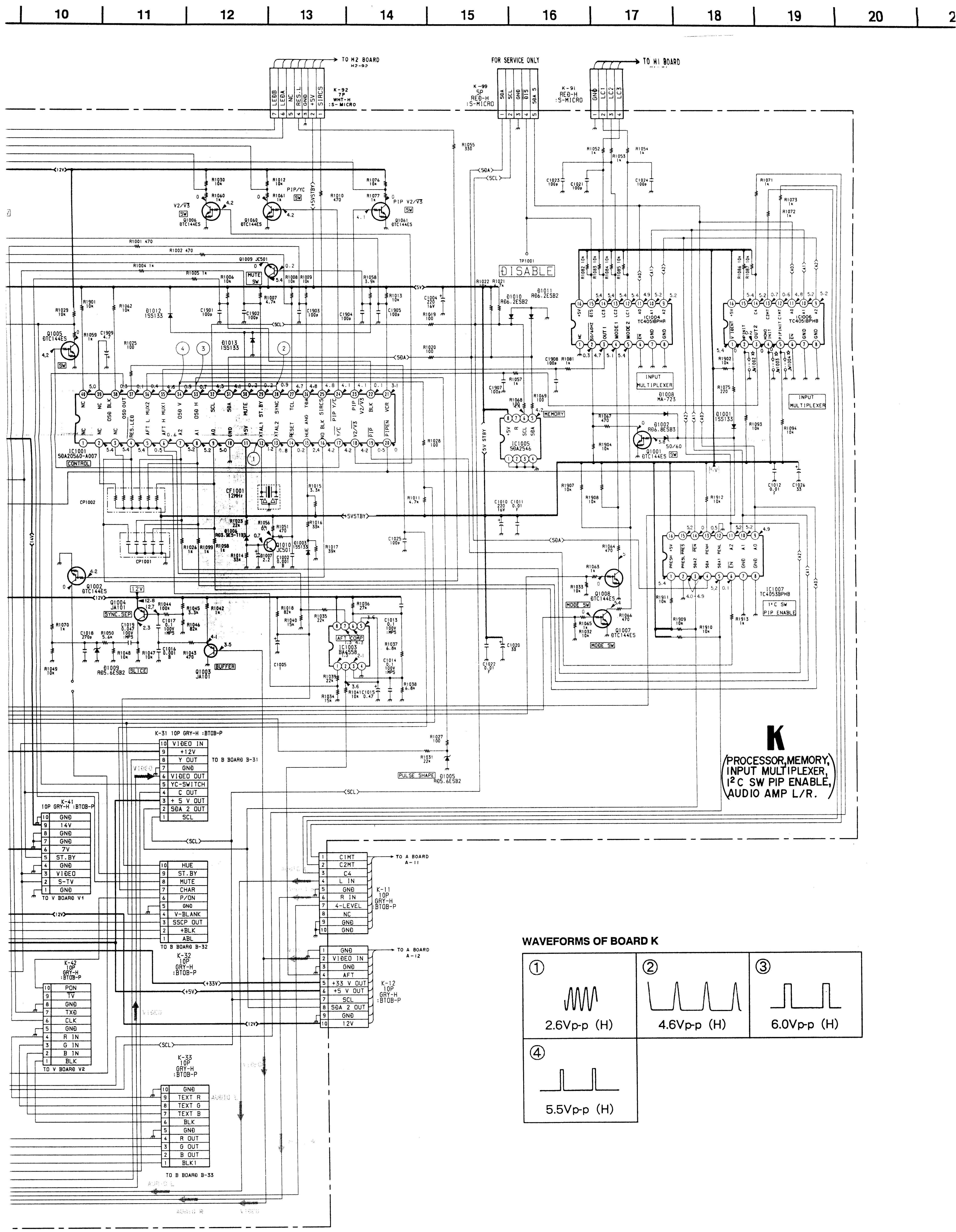
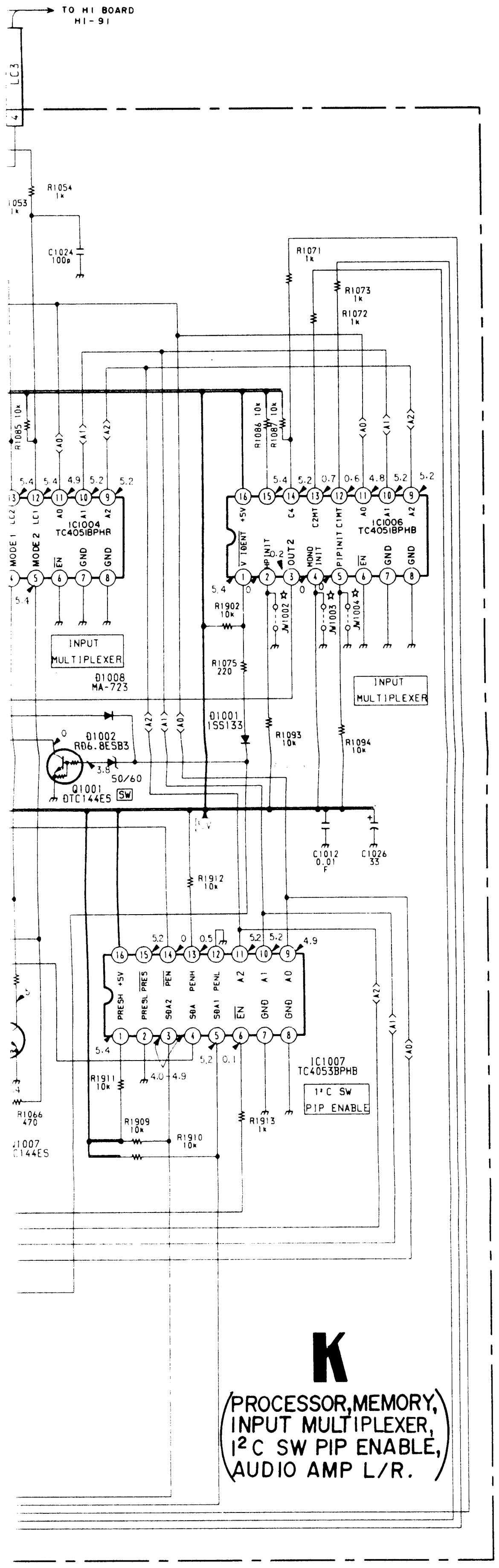
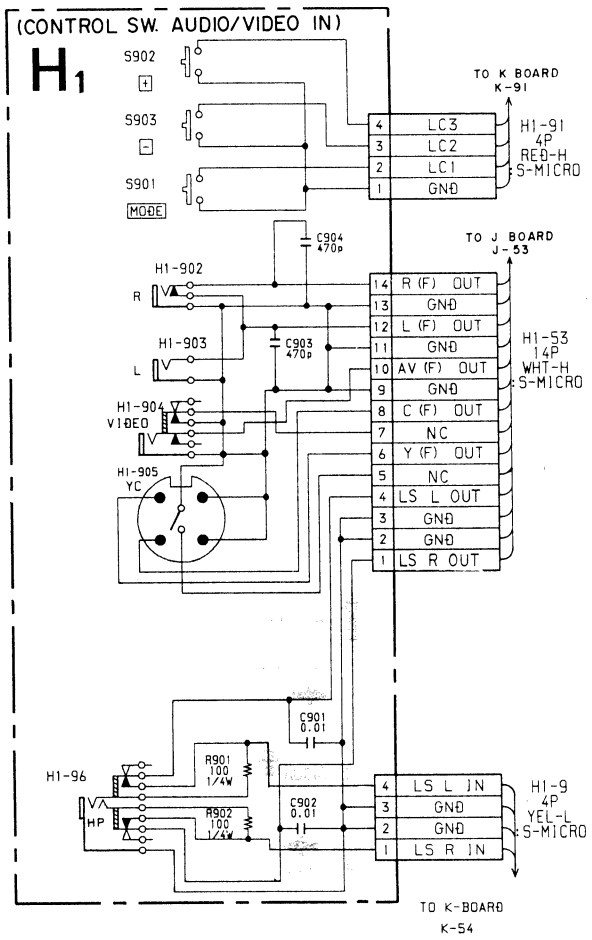
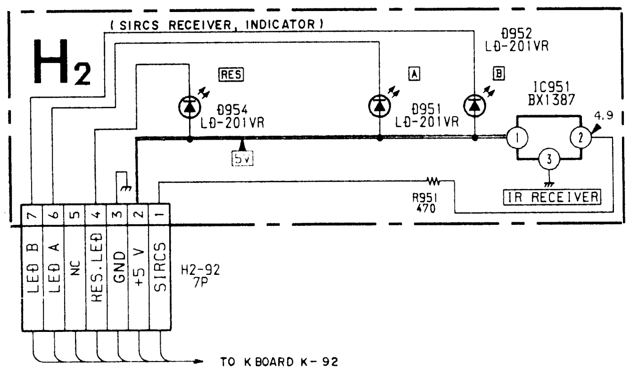
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
N.C
K-18 2P BLK-H :MICRO
GND
7V
TP1099
+B
K-2 5P WHT-H :MINI
+135 V IN
GND
+15 V IN
7 V IN
GND
TO G BOARD G-2
PS1099 2A
L1099 1.1μH :FB
C1098 1000 16V
IC1099 L78S05CV
C1099 1000 16V
5V REG
<+5V>
<+5VSTBY>
<12V>
7V
5V
7V
135V
15V
38V
5V
R1074 4.7k
C1027 10
D1271 RD12ESB2
MUTE
R1272 10k
D1272 1SS133
Q1271 JC501
R1273 10k
R1271 680
SW
K-3 4P WHT-H :S-MICRO
+38 V IN
NC
GND
GND
TO G BOARD G-3
K-20 4P WHT-H :MINI
+15V OUT
GND
+12V IN
ST.BY OUT
TO 0 BOARD 0-20
K-63 6P YEL-H :S-MICRO
TO F1-BOARD F1-63
+5 V STBY
GND
ST-BY OUT
+7 V OUT
GND
+5 V IN
<+5V STBY>
<+5V>
K-21 3P WHT-H :VH
+135 V
GND
GND
TO 0 BOARD 0-21
<+135V>
R1250 15k 3W :RS
R1024 15k 3W :RS
D1025 RD20ES-B3
20V REG.
D1024 RD33ESB1
<+33V>
AUDIO OUT-L
IC1251 TDA2050
L
R1276
R1259 33k 4.7k
C1250 10
R1275 68k
C1256 2.2
C1253 0.001 B
R1252 390
R1253 10k
C1252 100
AUDIO OUT-R
R1274 100k
R1255 10k
Q1251 JC501
R1257 6.8k
C1251 2.2
R1251 100k
R1267 6.8k
C1261 2.2
R1265 10k
C1266 2.2
Q1261 JC501
MUTE
R1284 100k
R1266 100k
IC1261 TDA2050
R
R1269 33k 4.7k
R1286
C1260 10
R1285 68k
C1263 0.001 B
R1262 390
R1263 10k
C1262 100
R1261 100k
TO J BOARD J-54
L OUT
GND
GND
R OUT
K-54 4P BLK-H :S-MICRO
R1258 1k 1W :RS
C1257 2200
C1254 0.1 100V :MPS
R1254 4.7 1W :RS
R1268 1k 1W :RS
C1255 1000
C1267 2200
R1264 4.7 1W :RS
C1264 0.1 100V :MPS
K-96 10P GRY-H :BTOB-P
+5V ST.BY
+7 V OUT
PIP ENB
GND
GND
R IN
G IN
B IN
BLK1 IN
GND
TO P BOARD P-96
K-97 10P GRY-H :BTOB-P
V PULSE OUT
SSCP
GND
VPIP OUT
GND
BLK1 OUT
B1 OUT
G1 OUT
R1 OUT
GND
TO P BOARD P-97
K-22 12P WHT-H :S-MICRO
TO 0 BOARD 0-22
S-TV OUT
GND
50/60 HZ
SSCP IN
VCR OUT
+BLK IN
PIC ABL IN
BRT ABL IN
H PULSE IN
V PULSE IN
GND
NO PIC
Q1901 JC501
R1921 3.3k
R1922 6.8k
C1922 100 16V
<SCL>
12V
<+5V>
<+33V>
K-41 10P GRY-H :BTOB-P
GND
14V
GND
GND
7V
ST.BY
GND
VIDEO
S-TV
GND
TO V BOARD V1
K-42 10P GRY-H :BTOB-P
PON
TV
GND
TXD
CLK
GND
R IN
G IN
B IN
BLK
TO V BOARD V2
K-31 10P GRY-
VIDEO
+12V
Y OU
GND
VIDEO
YC-SWI
C OU
+ 5 V
SDA 2
SCL
HUE
ST.B
MUTE
CHAR
P/ON
GND
V-BLA
SSCP
+BL
ABL
TO B BOAR
K-32 10P GRY-H :BTOB-
K-33 10P GRY-H :BTOB-
GNE
TEXT
TEXT
TEXT
BLK
GNE
R OU
G OU
B OU
BLK
TO B BOAR
V2/V3
SW
Q100
DTC144
R1001 470
R1002 470
R1004 1k
R1029 10k
R1901 10k
R1062 10k
D1012 1SS133
Q1005 DTC144ES
R1059 1k
C1909 4.7
R1025 100
4
SW
NC
NC
OSD BLK
NC
OSD OUT
MUX2
MUX1
OSD V
NC
NC
RES.LED
AFT L
AFT H
IC1001 SDA20560-A007
CONTROL
CP1002
CP1001
R102 1k
Q1002 DTC144ES
12V
Q1004 JA101
SYNC.SEP
R1044 100k
C1017 0.1 100V :MPS
R1070 1k
C1018 270p
R1050 5.6k
C1019 0.047 100V :MPS
R1048 10k
R1047 10k
C1016 0.001 B
R1043 470
R1049 10k
D1009 RD5.6ESB2
SLICE
PIP AV/YC
PIP V2/V3
V2/V3 SW
AV/Y-C SW
LED B IN
LED A IN
GND
+12 V OUT
GND
L OUT
R OUT
GND
L IN
R IN
GND
VPIP IN
SUBS OUT
GND
TO J BOARD J-52
K-52 18P BLK :HINGE-P
K-89 2P WHT-H :MINI
GND
GND
TO CRT SHIELD
MODE 1
MODE 2
GND
SDA 1 OUT
SCL
4 LEVEL
R
G
B
BLK
GND
C IN
GND
Y IN
GND
V IN
GND
V TV OUT
K-51 18P BLK :HINGE-P
TO J BOARD J-51
VIDEO
AUDIO



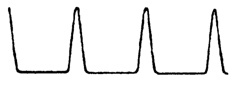
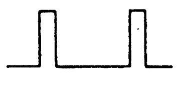
WAVEFORMS OF BOARD K



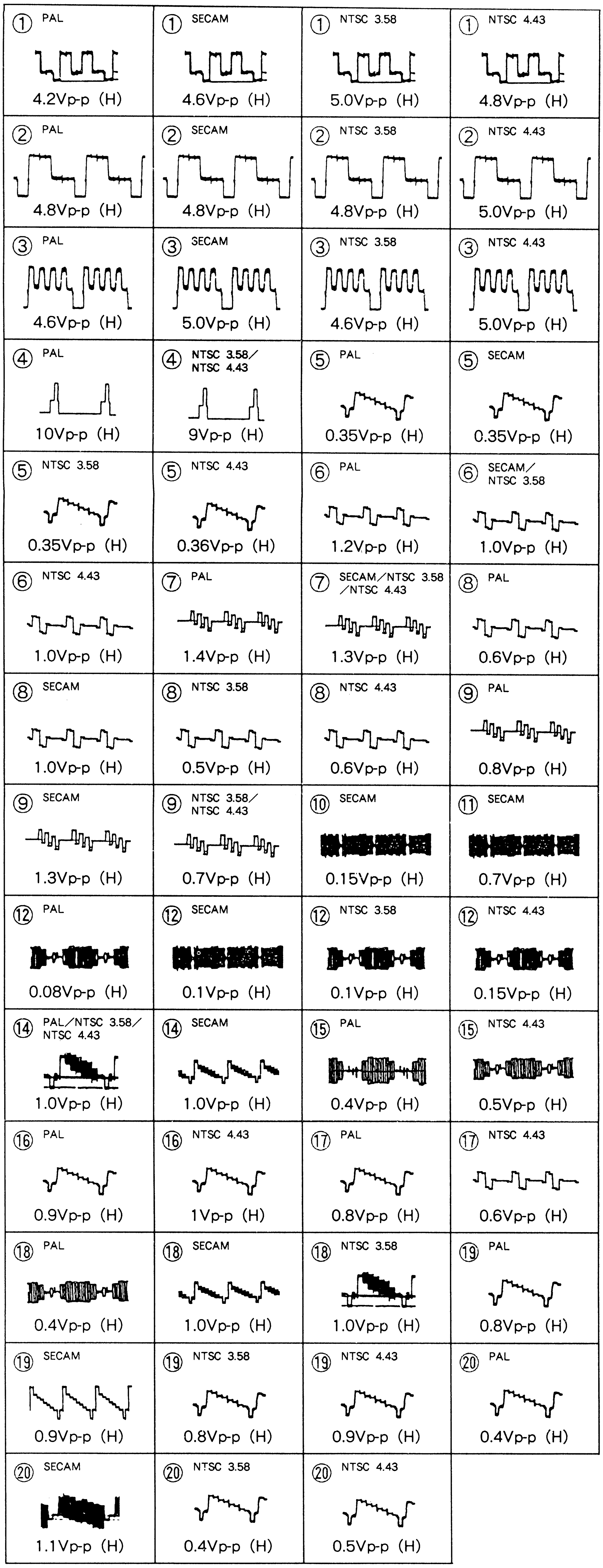




OARD K

②	③
 4.6Vp-p (H)	 6.0Vp-p (H)

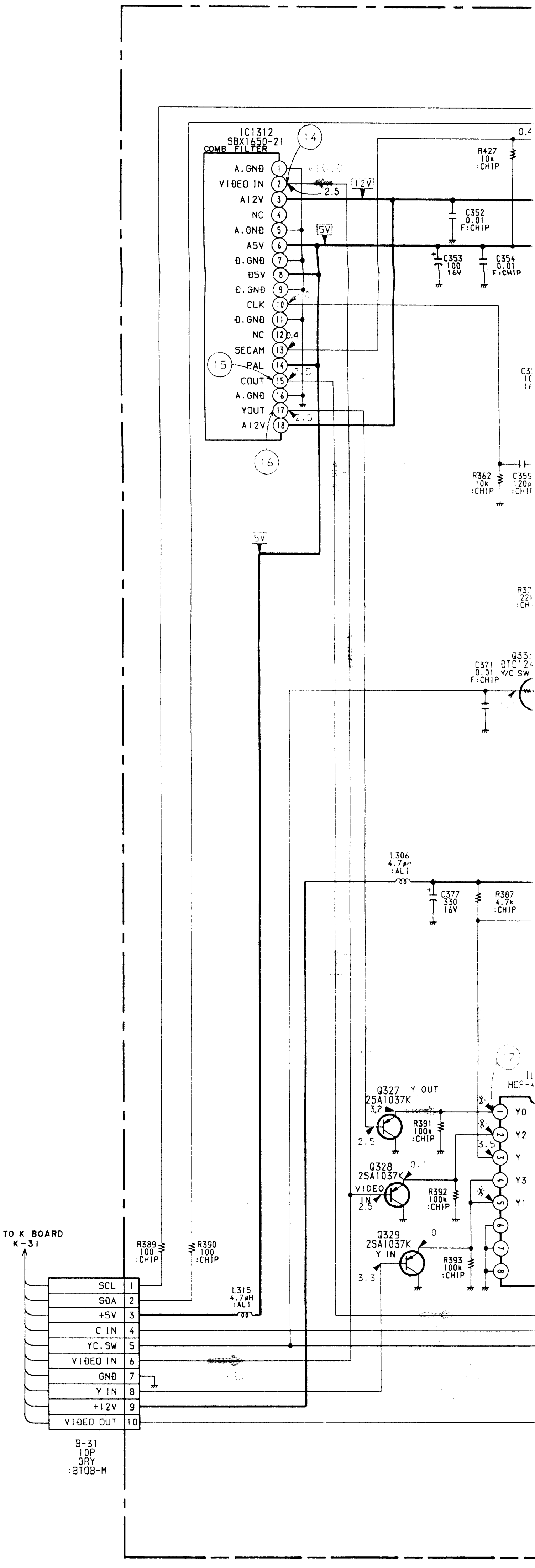
WAVEFORMS OF BOARD B



① PAL 4.2Vp-p (H)	① SECAM 4.6Vp-p (H)	① NTSC 3.58 5.0Vp-p (H)	① NTSC 4.43 4.8Vp-p (H)
② PAL 4.8Vp-p (H)	② SECAM 4.8Vp-p (H)	② NTSC 3.58 4.8Vp-p (H)	② NTSC 4.43 5.0Vp-p (H)
③ PAL 4.6Vp-p (H)	③ SECAM 5.0Vp-p (H)	③ NTSC 3.58 4.6Vp-p (H)	③ NTSC 4.43 5.0Vp-p (H)
④ PAL 10Vp-p (H)	④ NTSC 3.58/ NTSC 4.43 9Vp-p (H)	⑤ PAL 0.35Vp-p (H)	⑤ SECAM 0.35Vp-p (H)
⑤ NTSC 3.58 0.35Vp-p (H)	⑤ NTSC 4.43 0.36Vp-p (H)	⑥ PAL 1.2Vp-p (H)	⑥ SECAM/ NTSC 3.58 1.0Vp-p (H)
⑥ NTSC 4.43 1.0Vp-p (H)	⑦ PAL 1.4Vp-p (H)	⑦ SECAM/NTSC 3.58 /NTSC 4.43 1.3Vp-p (H)	⑧ PAL 0.6Vp-p (H)
⑧ SECAM 1.0Vp-p (H)	⑧ NTSC 3.58 0.5Vp-p (H)	⑧ NTSC 4.43 0.6Vp-p (H)	⑨ PAL 0.8Vp-p (H)
⑨ SECAM 1.3Vp-p (H)	⑨ NTSC 3.58/ NTSC 4.43 0.7Vp-p (H)	⑩ SECAM 0.15Vp-p (H)	⑪ SECAM 0.7Vp-p (H)
⑫ PAL 0.08Vp-p (H)	⑫ SECAM 0.1Vp-p (H)	⑫ NTSC 3.58 0.1Vp-p (H)	⑫ NTSC 4.43 0.15Vp-p (H)
⑭ PAL/NTSC 3.58/ NTSC 4.43 1.0Vp-p (H)	⑭ SECAM 1.0Vp-p (H)	⑮ PAL 0.4Vp-p (H)	⑮ NTSC 4.43 0.5Vp-p (H)
⑯ PAL 0.9Vp-p (H)	⑯ NTSC 4.43 1Vp-p (H)	⑰ PAL 0.8Vp-p (H)	⑰ NTSC 4.43 0.6Vp-p (H)
⑱ PAL 0.4Vp-p (H)	⑱ SECAM 1.0Vp-p (H)	⑱ NTSC 3.58 1.0Vp-p (H)	⑲ PAL 0.8Vp-p (H)
⑲ SECAM 0.9Vp-p (H)	⑲ NTSC 3.58 0.8Vp-p (H)	⑲ NTSC 4.43 0.9Vp-p (H)	⑳ PAL 0.4Vp-p (H)
⑳ SECAM 1.1Vp-p (H)	⑳ NTSC 3.58 0.4Vp-p (H)	⑳ NTSC 4.43 0.5Vp-p (H)	

As to the voltage vclue shown by the mark ※ on the Schematic Diagram, see the another list.

IC • NO
IC301
IC304



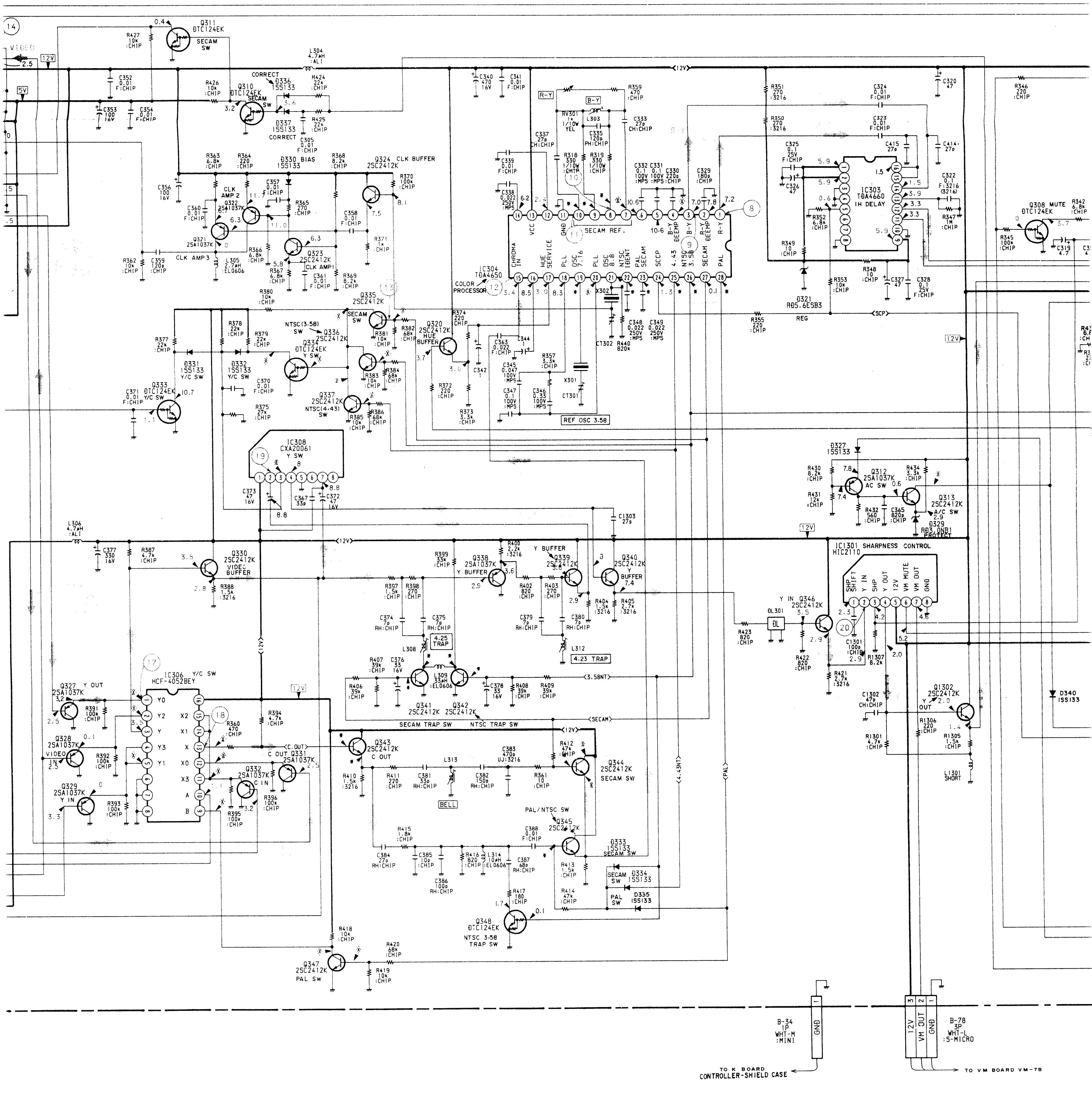
mark ※ on the
t.

IC • NO	PIN • NO	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC301	①	3.6	3.7	3.4	3.5
	②	5.7	5.7	5.9	5.7
	③	4.4	4.3	4.1	4.2
	⑤	4.7	4.7	4.5	4.6
	⑧	0.1	0.1	6.1	0.1
	⑪	8.5	0	0	0
	⑭	8.5	8.5	8.4	0
	⑲	3.8	3.6	3.5	3.5
	㉖	5.6	5.8	4.3	4.3
IC304	④	7.8	7.6	7.8	7.8
	⑦	5.3	3.7	5	4.9
	⑧	4.3	3.1	4.2	4
	⑨	4.3	3.1	4.2	4
	⑩	5.3	3.7	5	4.9
	⑲	3.5	4.7	2.5	3.3
	⑳	8.3	3.3	8.2	8.3
	㉑	2.4	3.3	3	2.5

IC • NO	PIN • NO	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC304	㉒	6	6	7.7	7.7
	㉓	8	7.6	5.9	5.9
	㉕	0.1	0.1	0.1	6.2
	㉖	0.1	0.1	6.1	0.1
	㉘	6.2	0.1	0.1	0.1
IC306	①	3.3	0.1	0.2	0
	②	0	3.2	3.2	3.2
	④	0	0.1	0.2	0
	⑤	0	0.1	0.2	0
	⑨	0.1	12.4	12.4	0.1
	⑪	0	3.9	3.9	3.9
	⑫	3.2	0.1	3.2	0
	⑬	3.4	4.1	3.4	4.1
	⑭	0	3.9	3.9	3.9
	⑮	0	3.9	3.9	3.9
IC308	③	0.6	6.9	6.9	6.9

Q • NO		PAL	SECAM	NTSC 3.58	NTSC 4.43
Q304	B	0.1	0.8	0.1	0.1
Q307	C	3.8	3.8	3.8	3.5
Q313	C	3.8	3.8	3.8	3.5
Q334	B	1.2	0.1	0.1	0.1
	C	10.8	12.4	12.4	12.4
Q335	B	0	0.7	0	0
	C	8.6	0.1	8.6	8.6
Q336	B	0	0	0.7	0
Q337	B	0	0	0	0.7
	C	8.6	8.6	8.6	0.1
Q341	B	0	0.7	0	0
	C	12.4	0	12.4	12.4
Q342	B	0	0	0.7	0
	C	12.4	12.4	0	12.4
Q343	B	4.3	4.8	4.8	4.8
	E	3.6	3.6	4.2	4.2

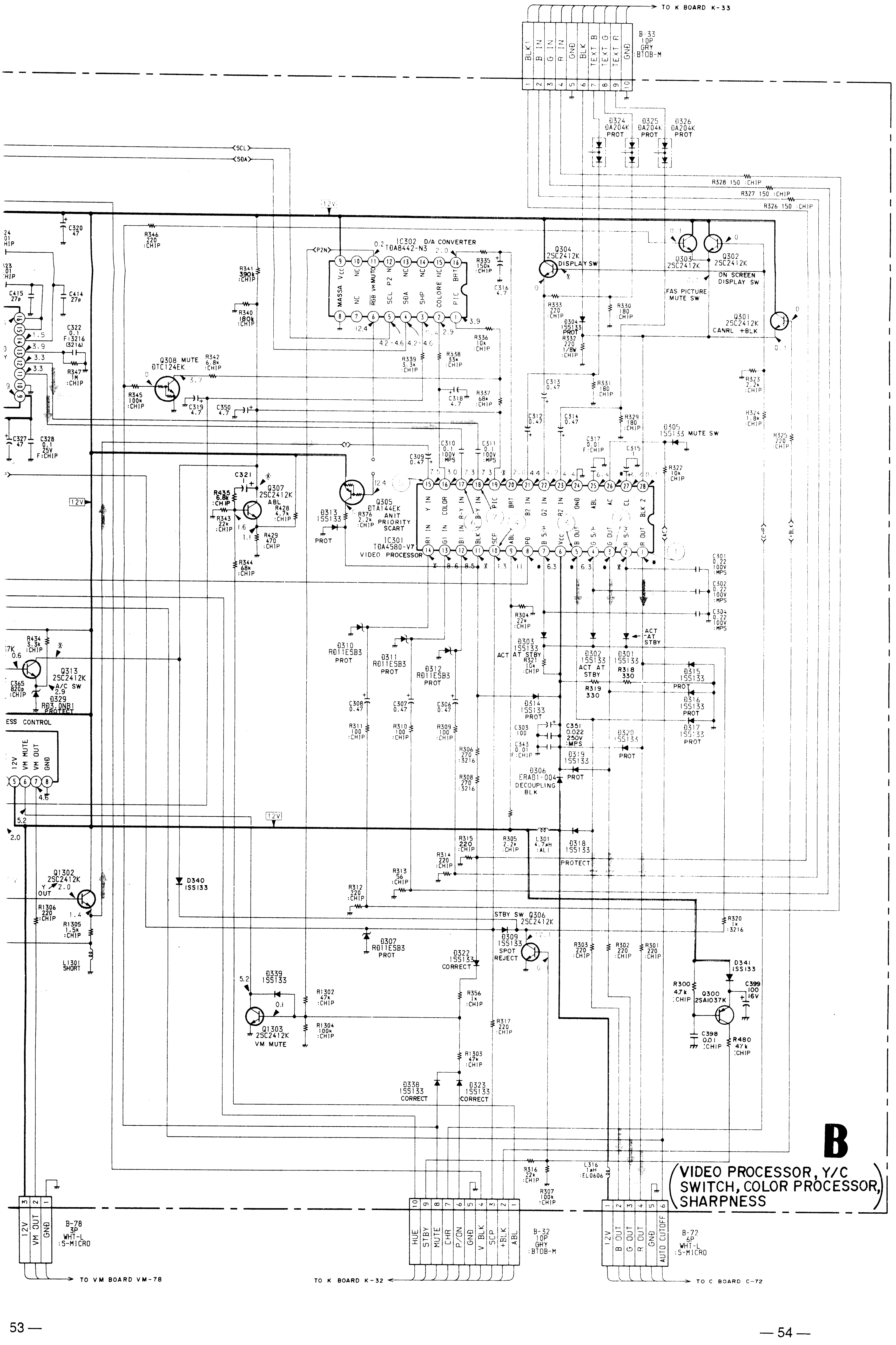
Q • NO		PAL
Q344	B	0.1
	E	4.3
Q345	B	5
	E	4.3
	C	12.4
Q347	B	0.7
	C	0.1



20 21 22 23 24 25 26 27 28

SC 58	NTSC 4.43
1	0.1
3	3.5
3	3.5
	0.1
4	12.4
	0
	8.6
	0
	0.7
	0.1
	0
4	12.4
	0
	12.4
	4.8
	4.2

Q • NO		PAL	SECAM	NTSC 3.58	NTSC 4.43
Q344	B	0.1	5.3	0.1	0.1
	E	4.3	4.6	4.3	4.3
Q345	B	5	0.1	4.9	5
	E	4.3	4.6	4.3	4.3
	C	12.4	10.2	12.4	12.4
Q347	B	0.7	0	0	0
	C	0.1	0.1	12.4	12.4

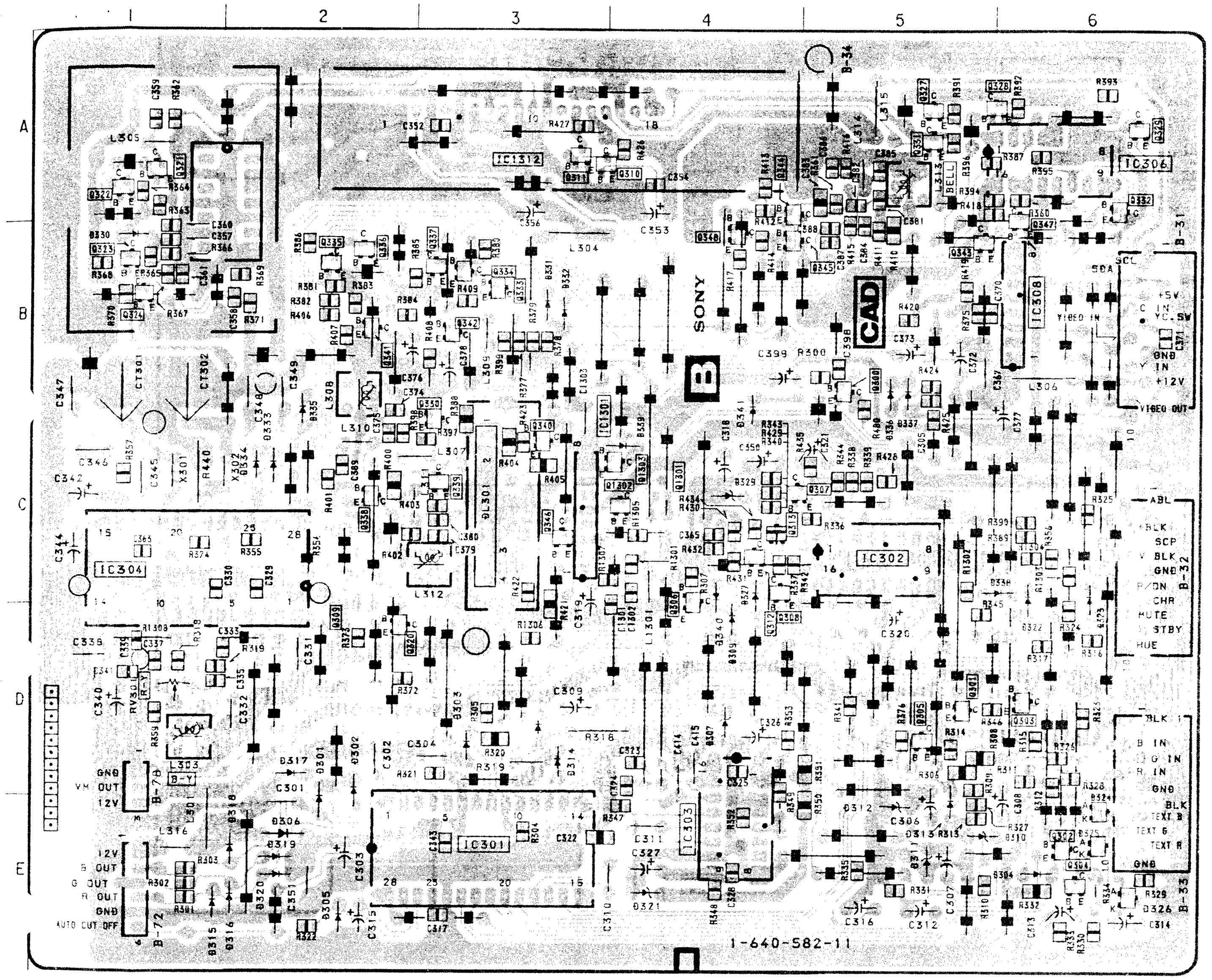


B

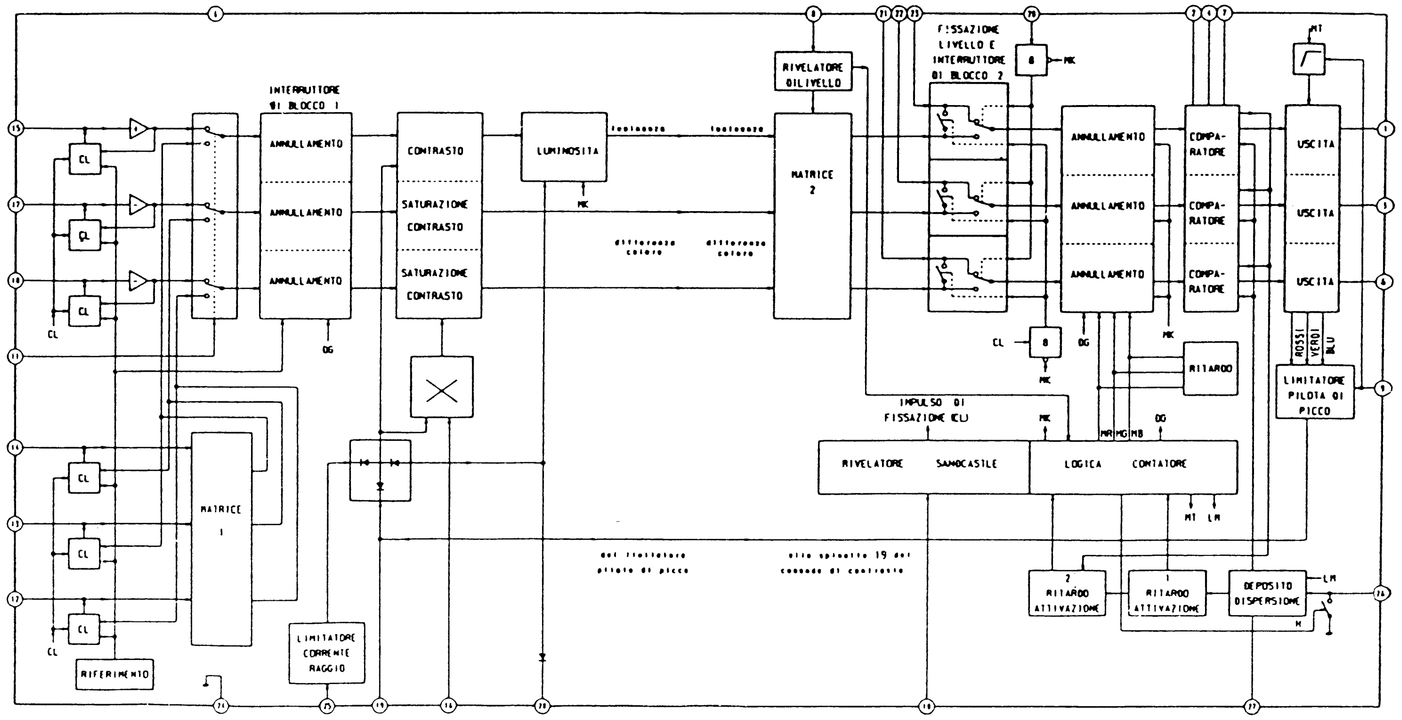
(VIDEO PROCESSOR, Y/C SWITCH, COLOR PROCESSOR, SHARPNESS)

B [VIDEO PROCESSOR, Y/C SWITCH COLOR PROCESSOR, SHARPNESS CONTROL]

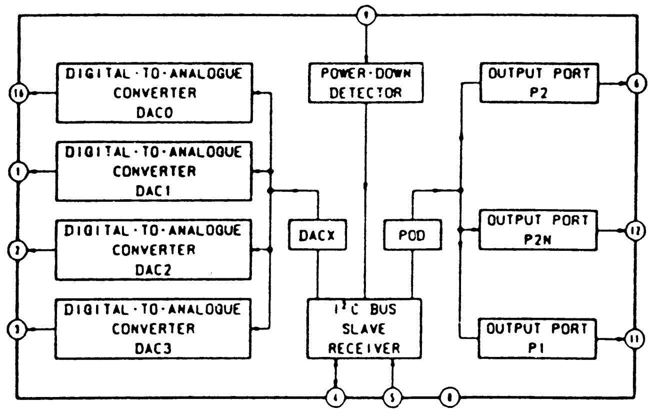
— B Board —



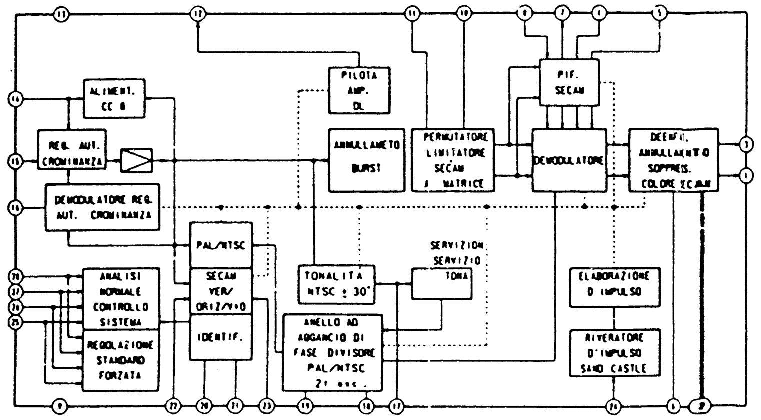
B BOARD IC301 TDA4580-V6



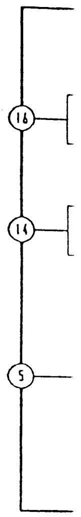
B BOARD IC302 TDA8442-N3

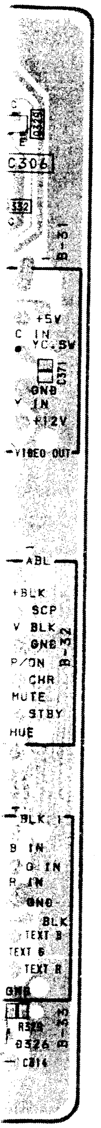

DIGITAL-TO-ANALOGUE CONVERTER DAC0
DIGITAL-TO-ANALOGUE CONVERTER DAC1
DIGITAL-TO-ANALOGUE CONVERTER DAC2
DIGITAL-TO-ANALOGUE CONVERTER DAC3
POWER-DOWN DETECTOR
DACX
POD
I²C BUS SLAVE RECEIVER
OUTPUT PORT P2
OUTPUT PORT P2N
OUTPUT PORT P1

B BOARD IC303 TDA4660

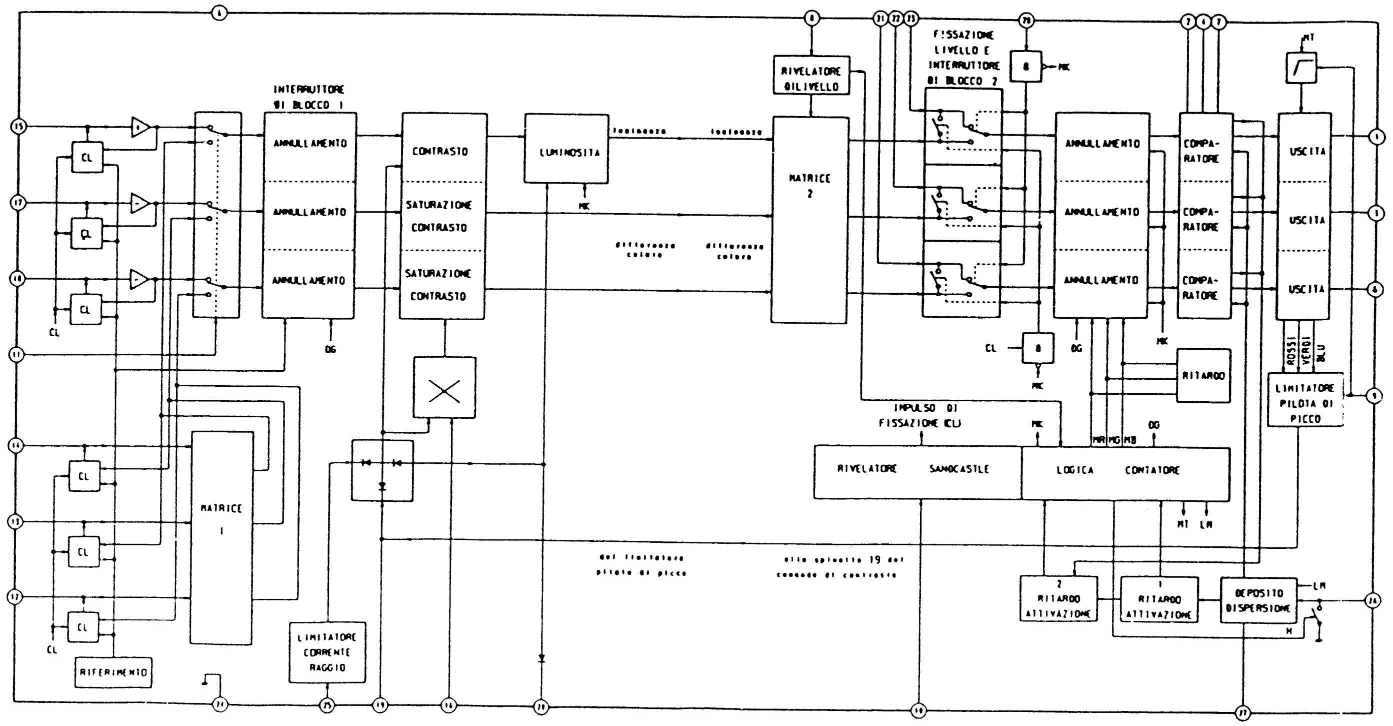

ALIMENT. CC B
REG. AUT. CROMINANZA
DEMODULATORE REG. AUT. CROMINANZA
PILOTA AMP. DL
ANNULLAMETO BURST
PERMUTATORE LIMITATORE SECAM A MATRICE
PIF. SECAM
DEMODULATORE
DEENFAS. ANNULLAMENTO SOPPRES. COLORE SECAM
PAL/NTSC
SECAM VER/ORIZ/V+O
IDENTIF.
ANALISI NORMALE CONTROLLO SISTEMA
REGOLAZIONE STANDARD FORZATA
TONALITA NTSC ± 30°
SERVIZION SERVIZIO TONA
ANELLO AD AGGANCIO DI FASE DIVISORE PAL/NTSC 2f osc.
ELABORAZIONE D IMPULSO
RIVERATORE D'IMPULSO SAND CASTLE

B BO

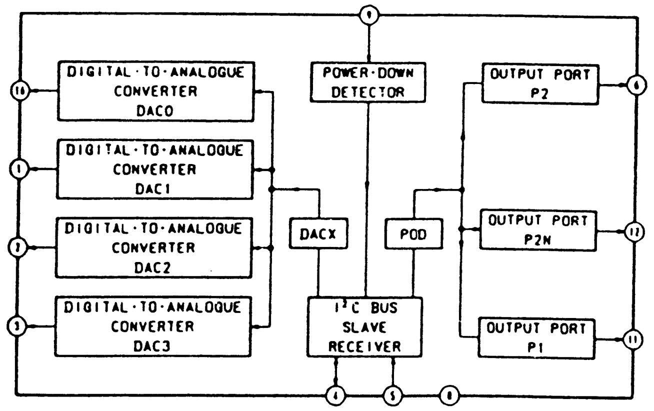




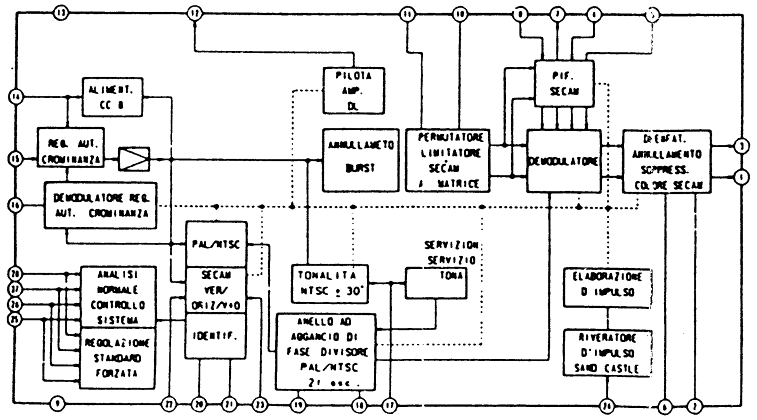
B BOARD IC301 TDA4580-V6



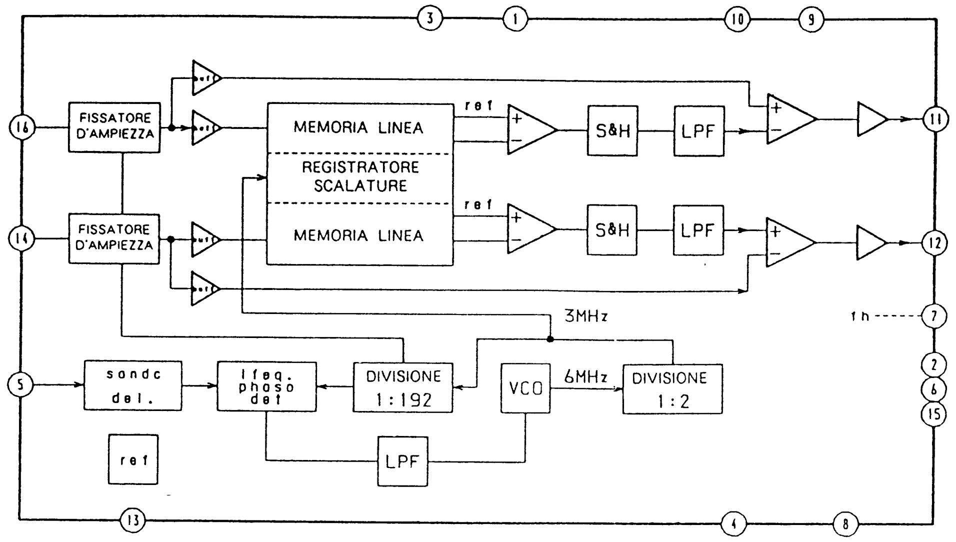
B BOARD IC302 TDA8442-N3



B BOARD IC303 TDA4660

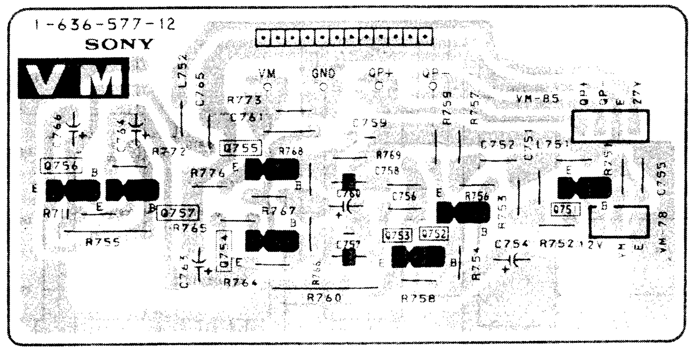


B BOARD IC304 TDA4650



VM [VM AMP] **P1**

— VM Board —



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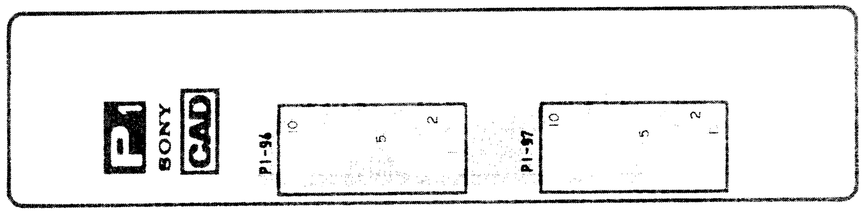
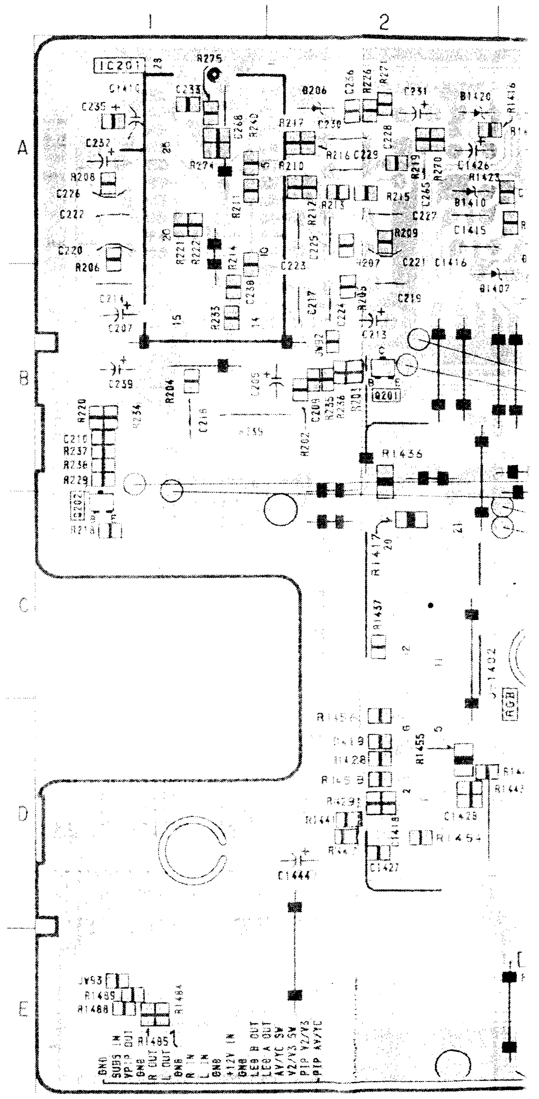


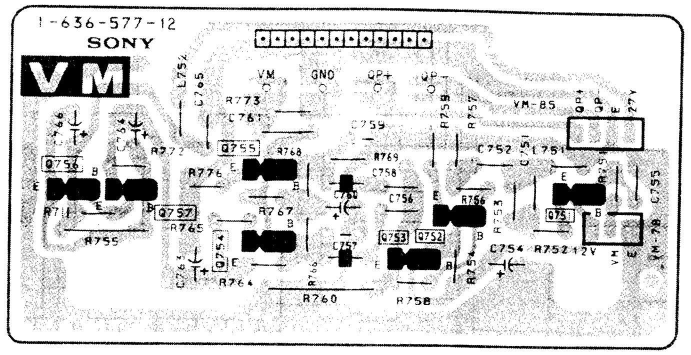
J [AUDIO CONTROL, AUDIO SW, AUDIO/V
SW, COMPOSITE Y/C SW

— J Board —

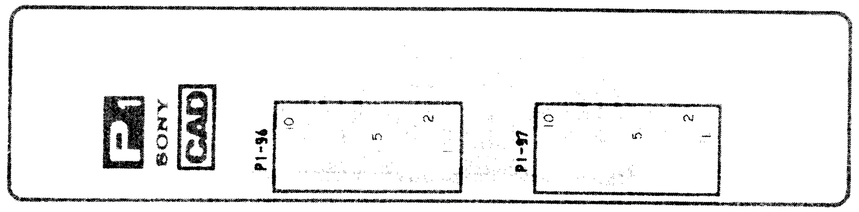


VM [VM AMP] P1

— VM Board —

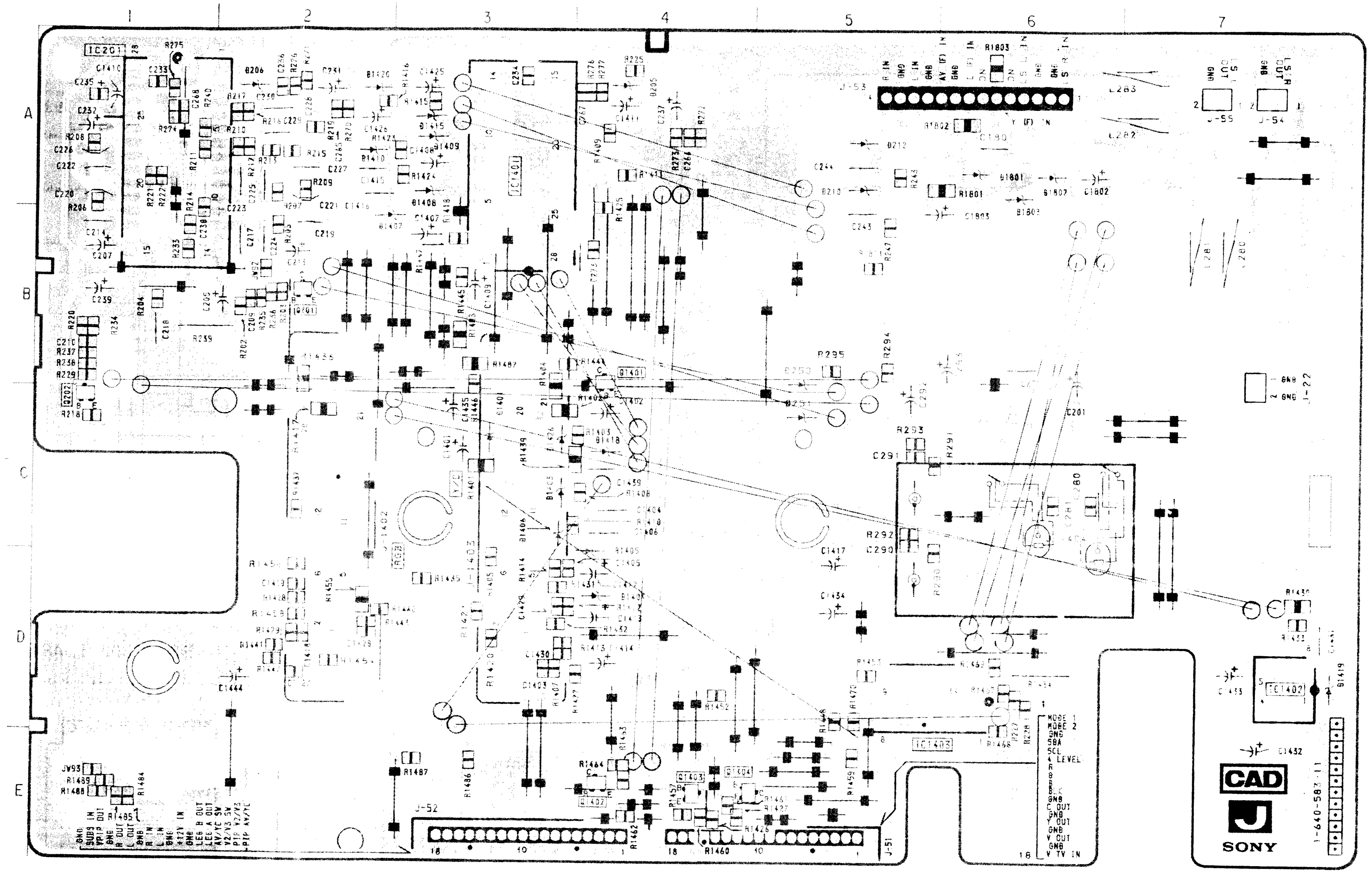


— P1 Board —

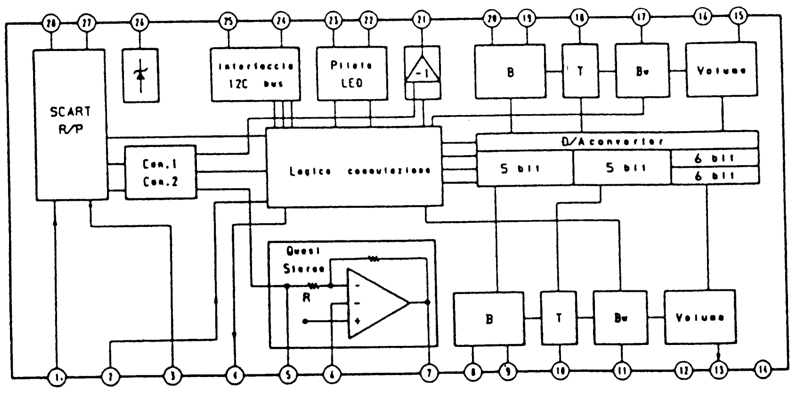


J [AUDIO CONTROL, AUDIO SW, AUDIO/VIDEO SW, PIN SW, COMPOSITE Y/C SW]

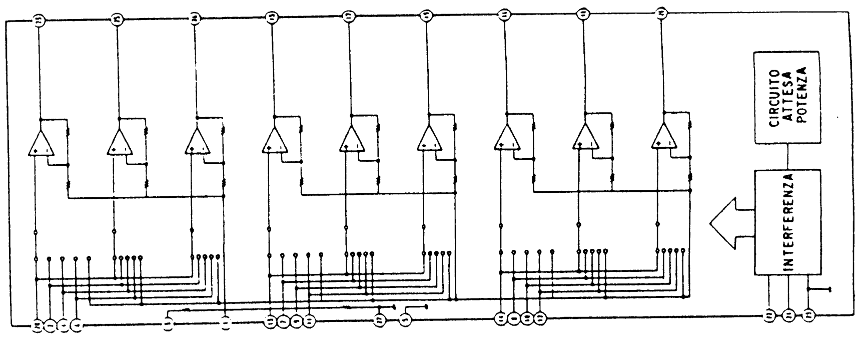
— J Board —



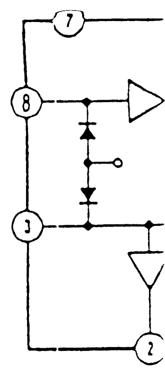
J BOARD IC201 TDA6200

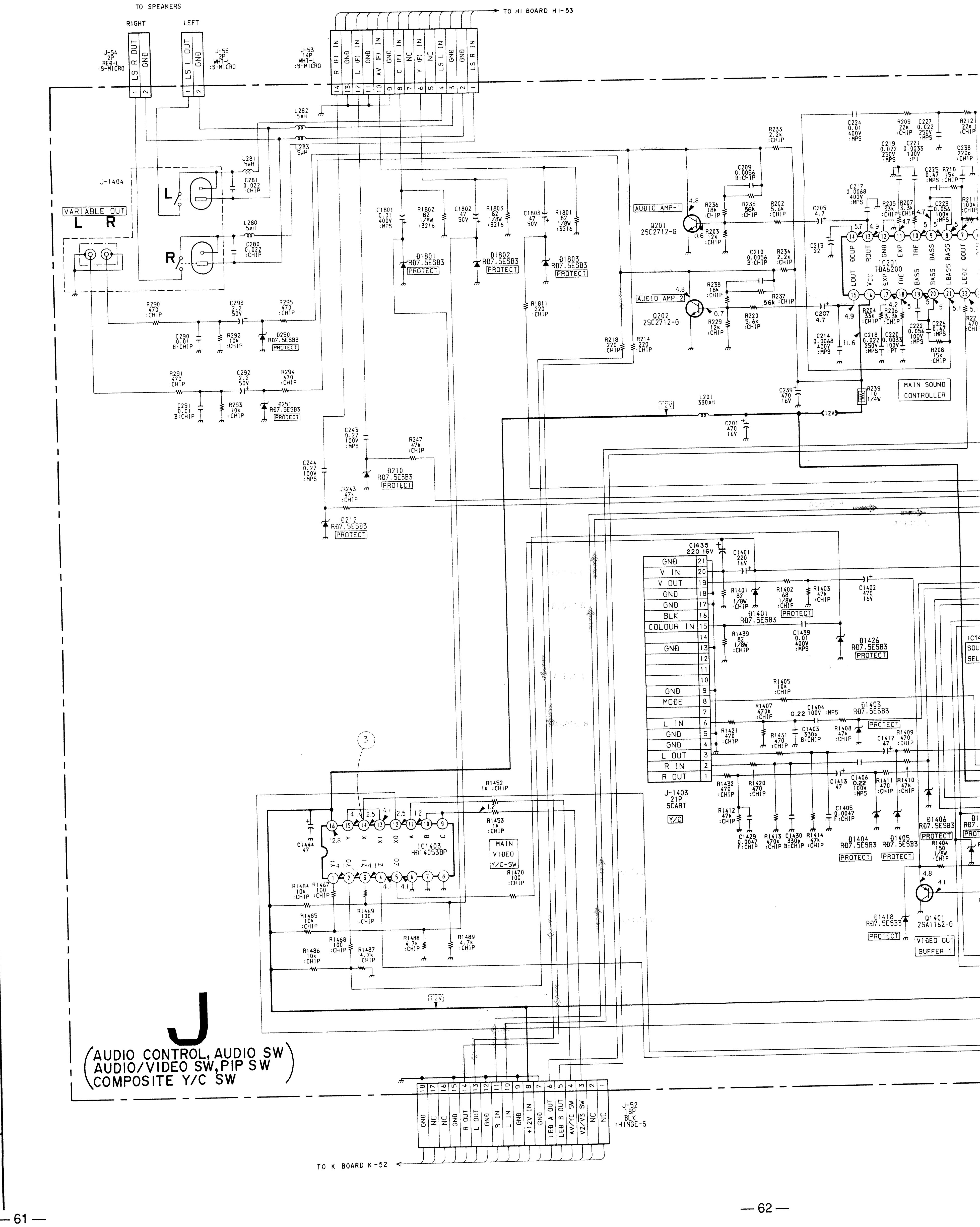


J BOARD IC1401 CXA1114P



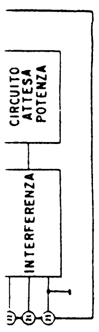
J BOARD IC



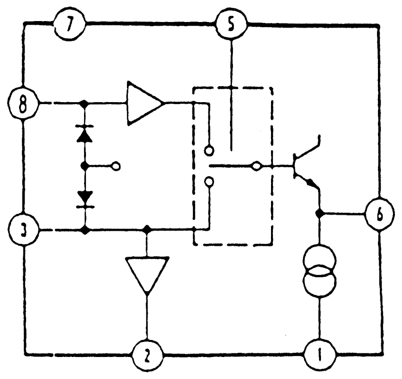


J

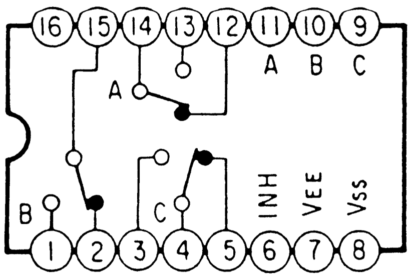
(AUDIO CONTROL, AUDIO SW
AUDIO/VIDEO SW, PIP SW
COMPOSITE Y/C SW)

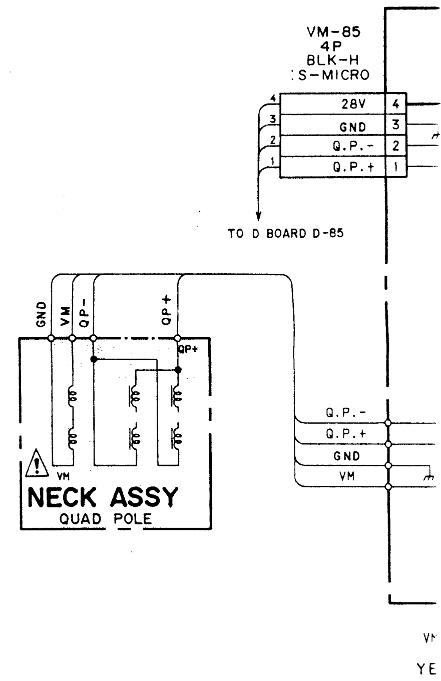


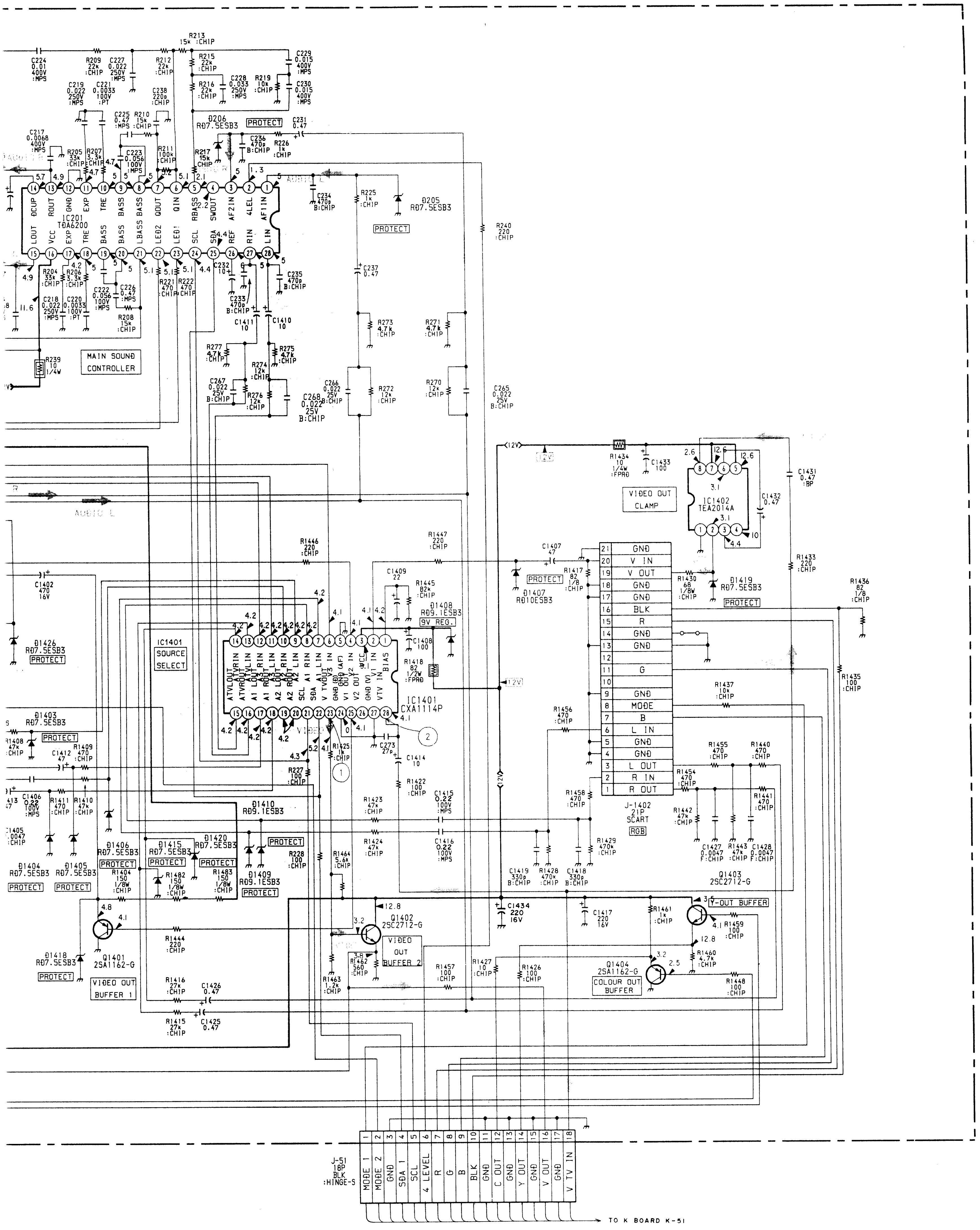
J BOARD IC1402 TEA2014A



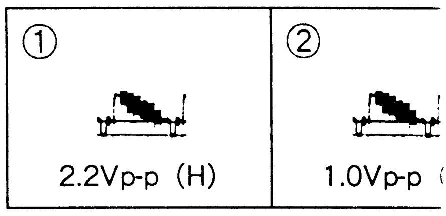
J BOARD IC1403 HD14053BP

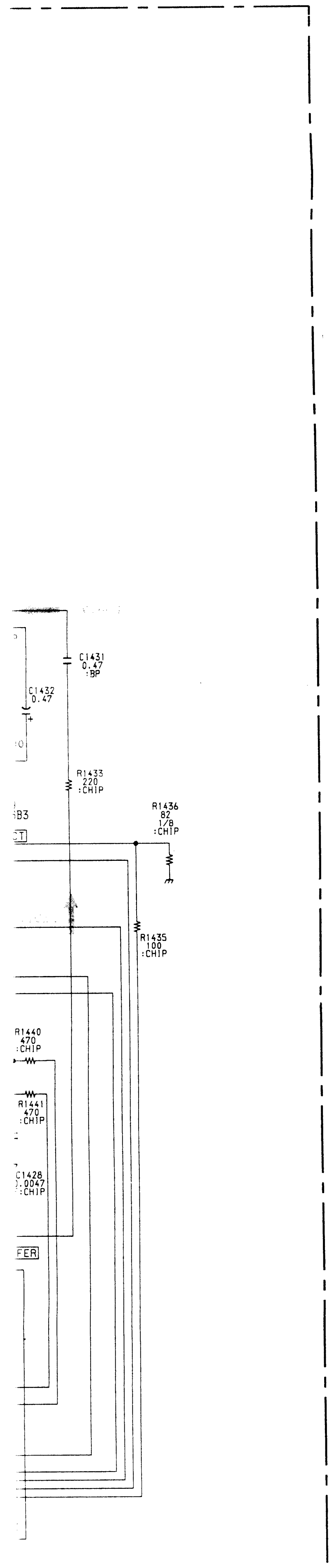


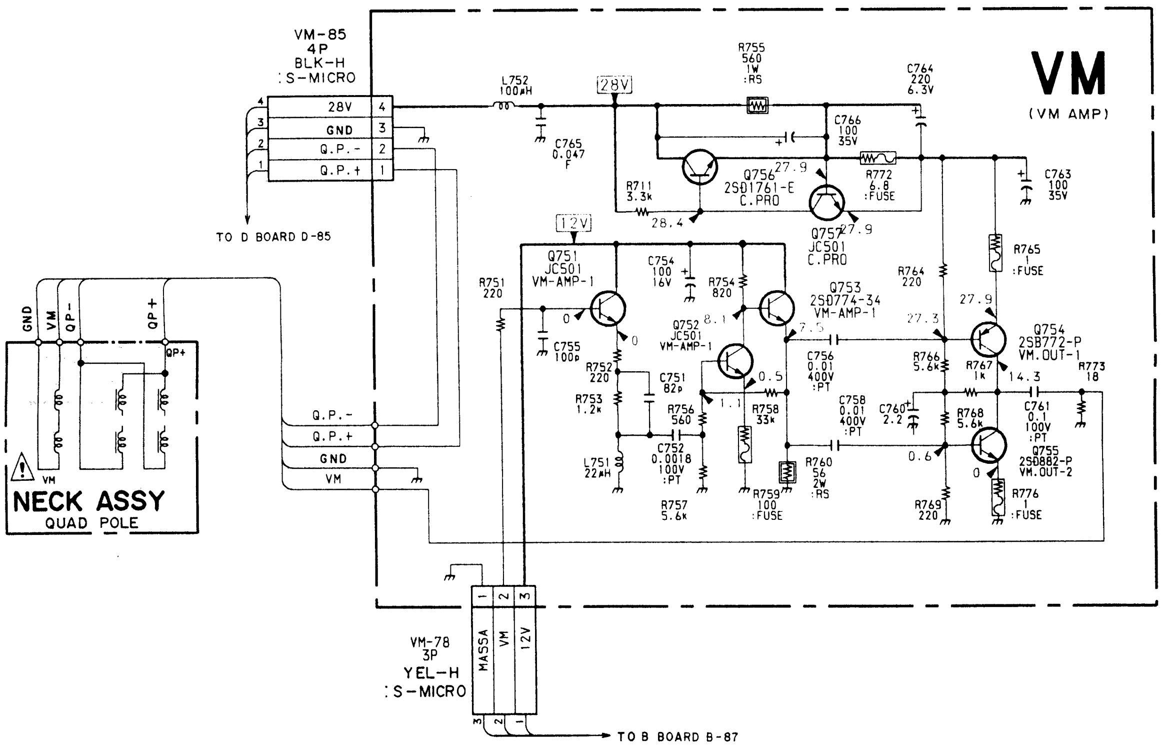


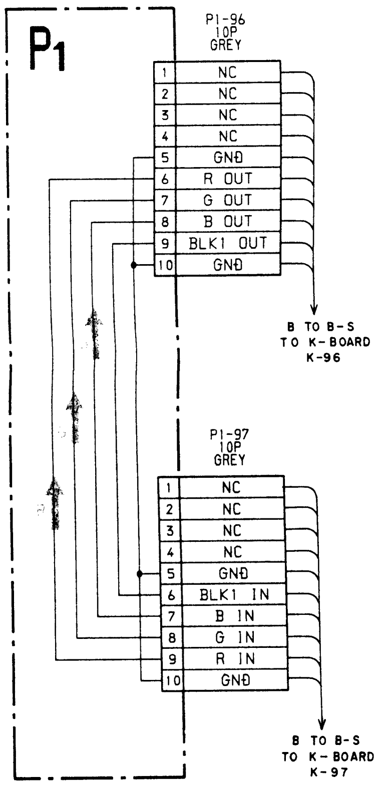


WAVEFORMS OF BOARD J

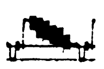
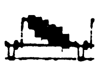
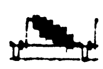




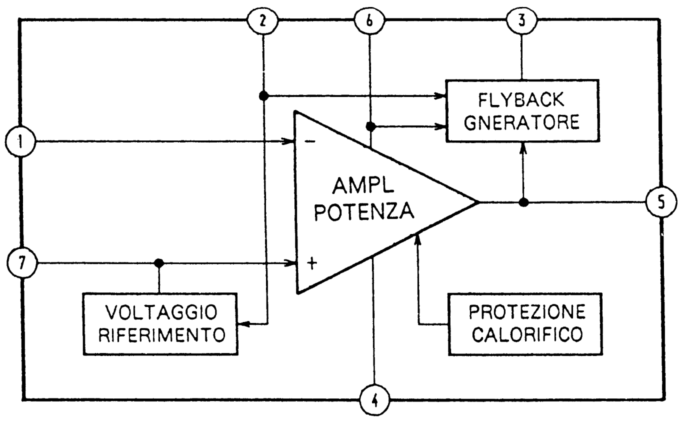




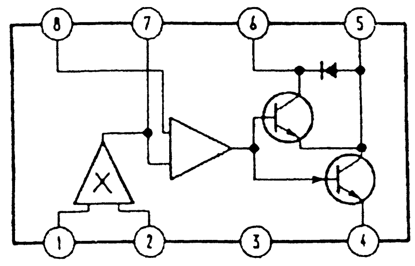
WAVEFORMS OF BOARD J

①	②	③
		
2.2Vp-p (H)	1.0Vp-p (H)	1.0Vp-p (H)

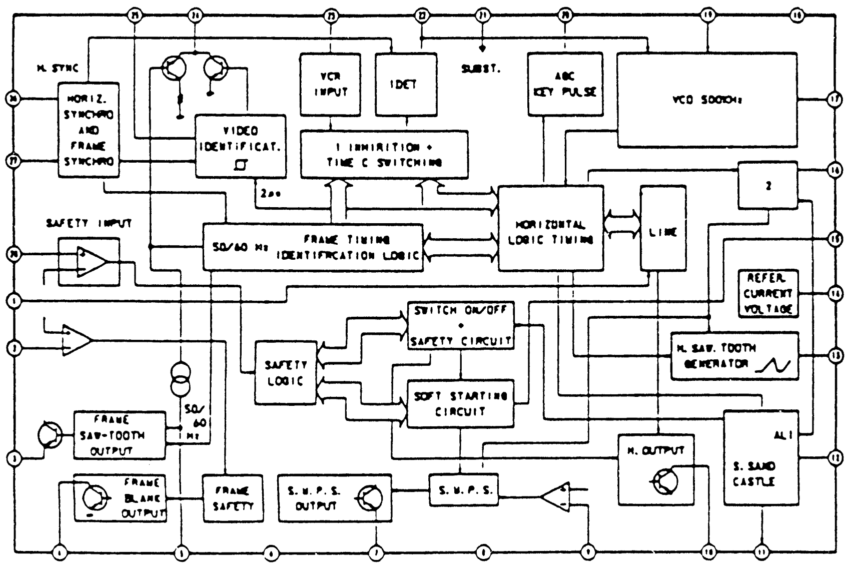
D BOARD IC502 TDA8170

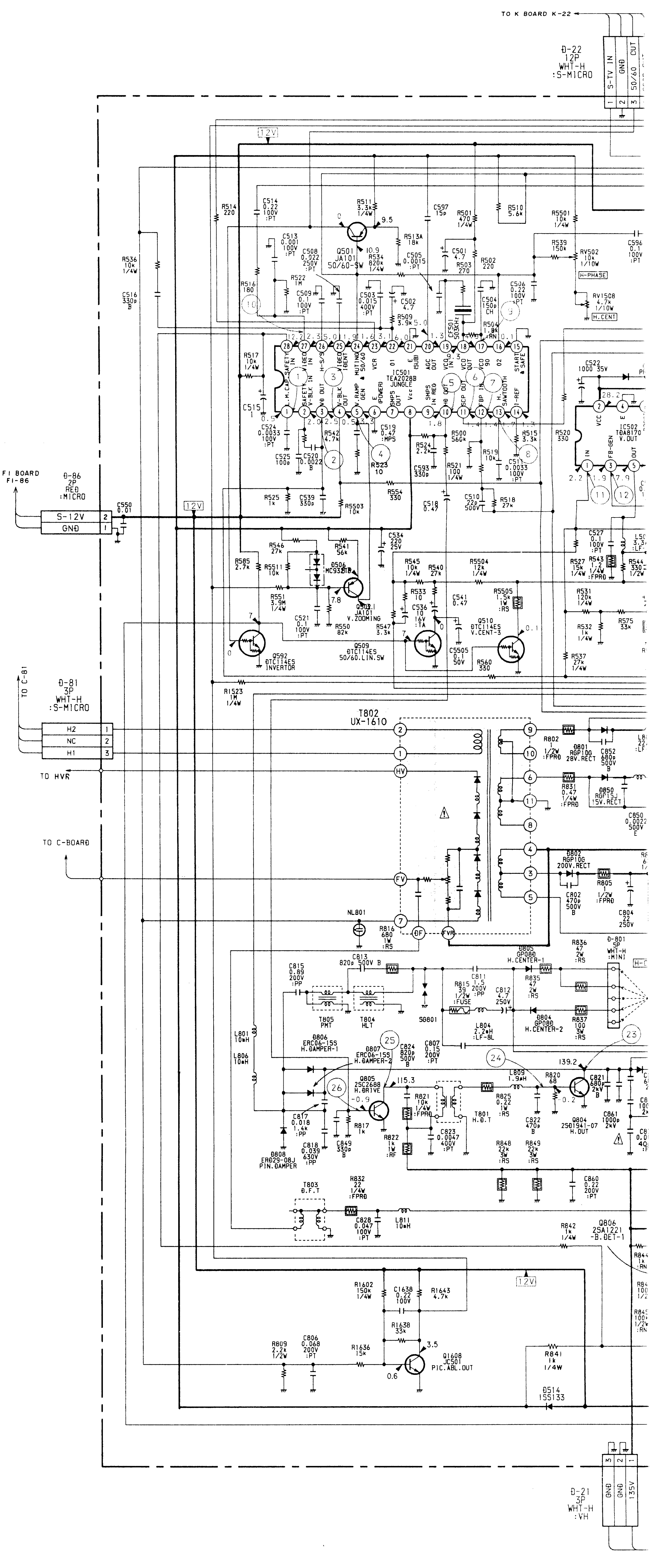


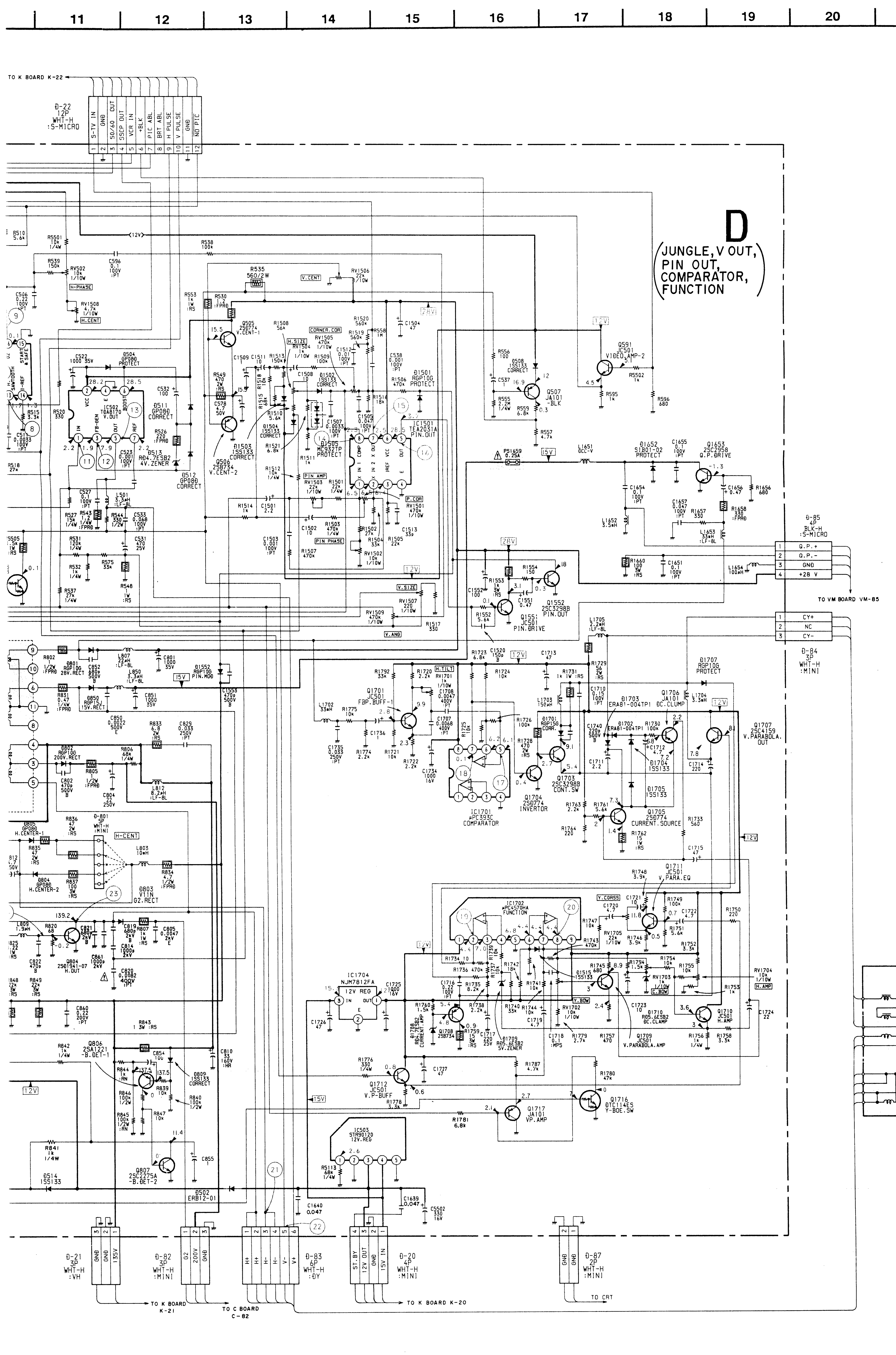
D BOARD IC1501 TEA2031A



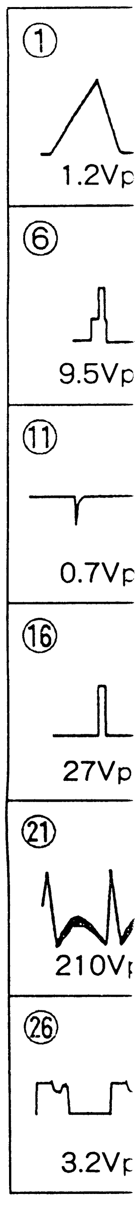
D BOARD IC501 TEA2028B



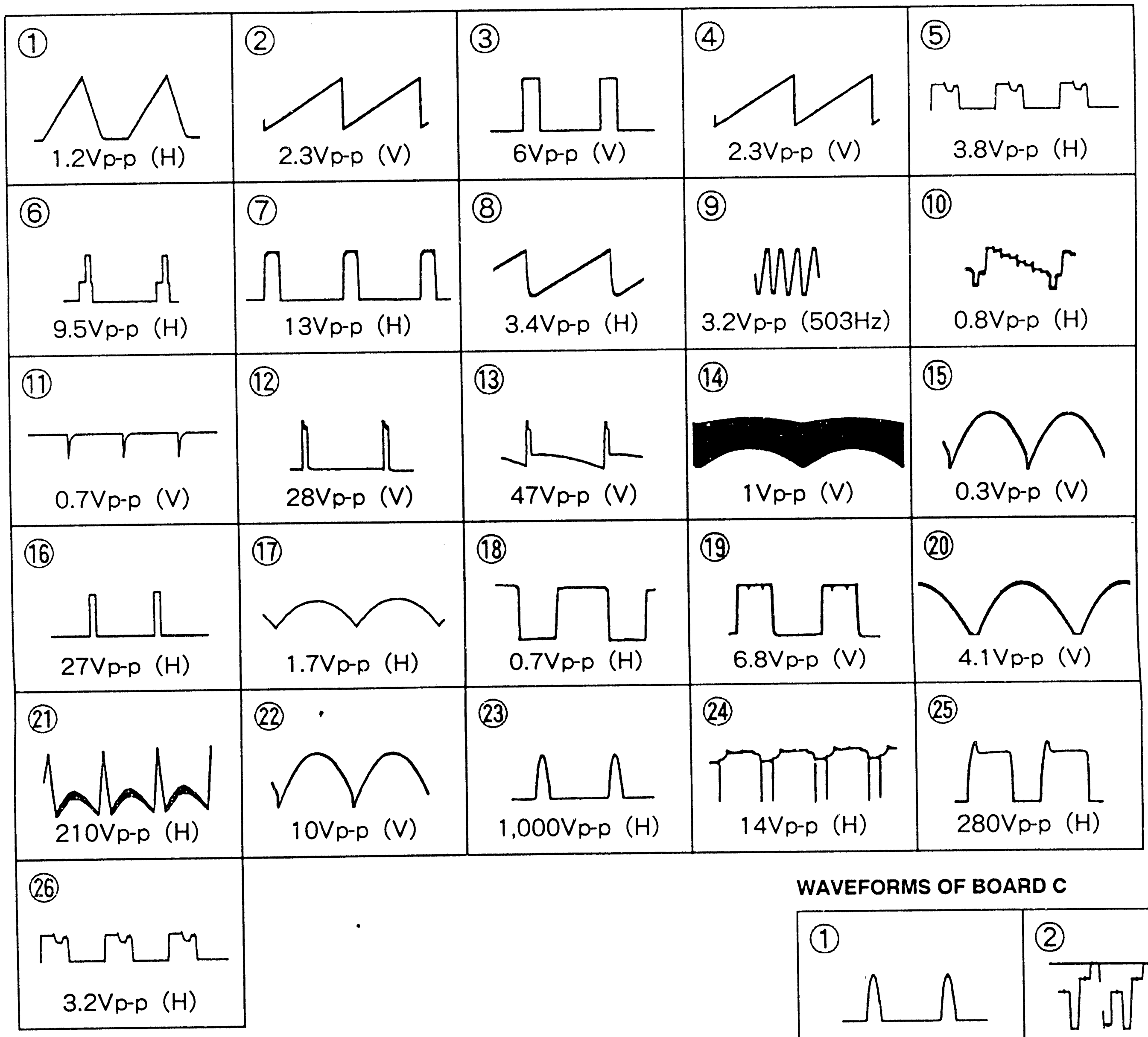



11
12
13
14
15
16
17
18
19
20
21
D
(JUNGLE, V OUT, PIN OUT, COMPARATOR, FUNCTION)
TO K BOARD K-22
D-22 12P WHT-H :S-MICRO
S-TV IN
GND
50/60 OUT
SSCP OUT
VCR IN
+BLK
PIC ABL
BRT ABL
H PULSE
V PULSE
GND
NO PIC
IC502 TDA8170 V.OUT
IC1501 TEA2031A PIN.OUT
Q505 2SD774 V.CENT-1
Q504 2SB734 V.CENT-2
Q591 JC501 VIDEO AMP-2
Q507 JA101 -BLK
Q1653 2SC2958 Q.P.DRIVE
Q1551 JC501 PIN.DRIVE
Q1552 2SC3298B PIN.OUT
D-85 4P BLK-H :S-MICRO
Q.P.+
Q.P.-
GND
+28 V
TO VM BOARD VM-85
CY+
NC
CY-
D-84 3P WHT-H :MINI
Q1701 JC501 FBP.BUFF-1
IC1701 µPC393C COMPARATOR
Q1704 2SD774 INVERTOR
Q1703 2SC3298B CONT.SW
Q1705 2SD774 CURRENT.SOURCE
Q1706 JA101 DC.CLUMP
Q1707 2SC4159 V.PARABOLA. OUT
Q1711 JC501 V.PARA.EQ
IC1702 µPC4570HA FUNCTION
IC1704 NJM7812FA 12V REG
Q1708 2SB734
Q1709 JC501 V.PARABOLA.AMP
Q1710 JC501 H.AMP
Q1712 JC501 V.P-BUFF
Q1717 JA101 VP.AMP
Q1716 DTC114ES Y-BOE.SW
IC503 STR90120 12V.REG
Q804 2SD1941-07 H.OUT
Q806 2SA1221 -B.DET-1
Q807 2SC2275A -B.DET-2
D-801 5P WHT-H :MINI
H-CENT
D-21 3P WHT-H :VH
GND
GND
135V
TO K BOARD K-21
D-82 3P WHT-H :MINI
G2
200V
GND
TO C BOARD C-82
D-83 6P WHT-H :DY
H+
H+
H-
H-
V-
V+
D-20 4P WHT-H :MINI
ST.BY
12V OUT
GND
15V IN
TO K BOARD K-20
D-87 2P WHT-H :MINI
GND
GND
TO CRT
DY
CY
V
H

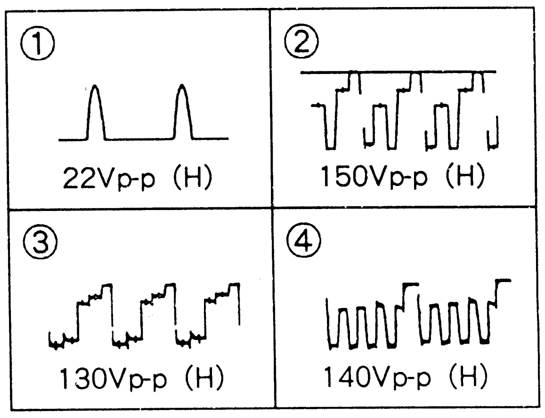
WAVEFOR

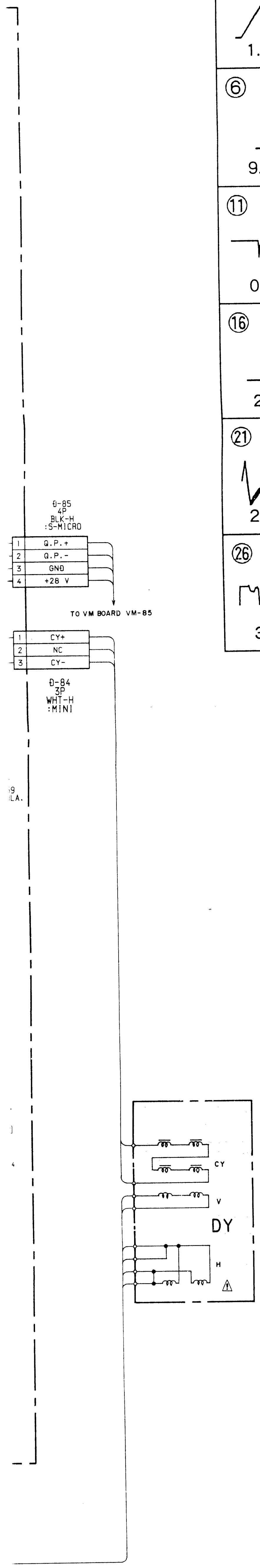

①
1.2Vp
⑥
9.5Vp
⑪
0.7Vp
⑯
27Vp
㉑
210Vp
㉖
3.2Vp

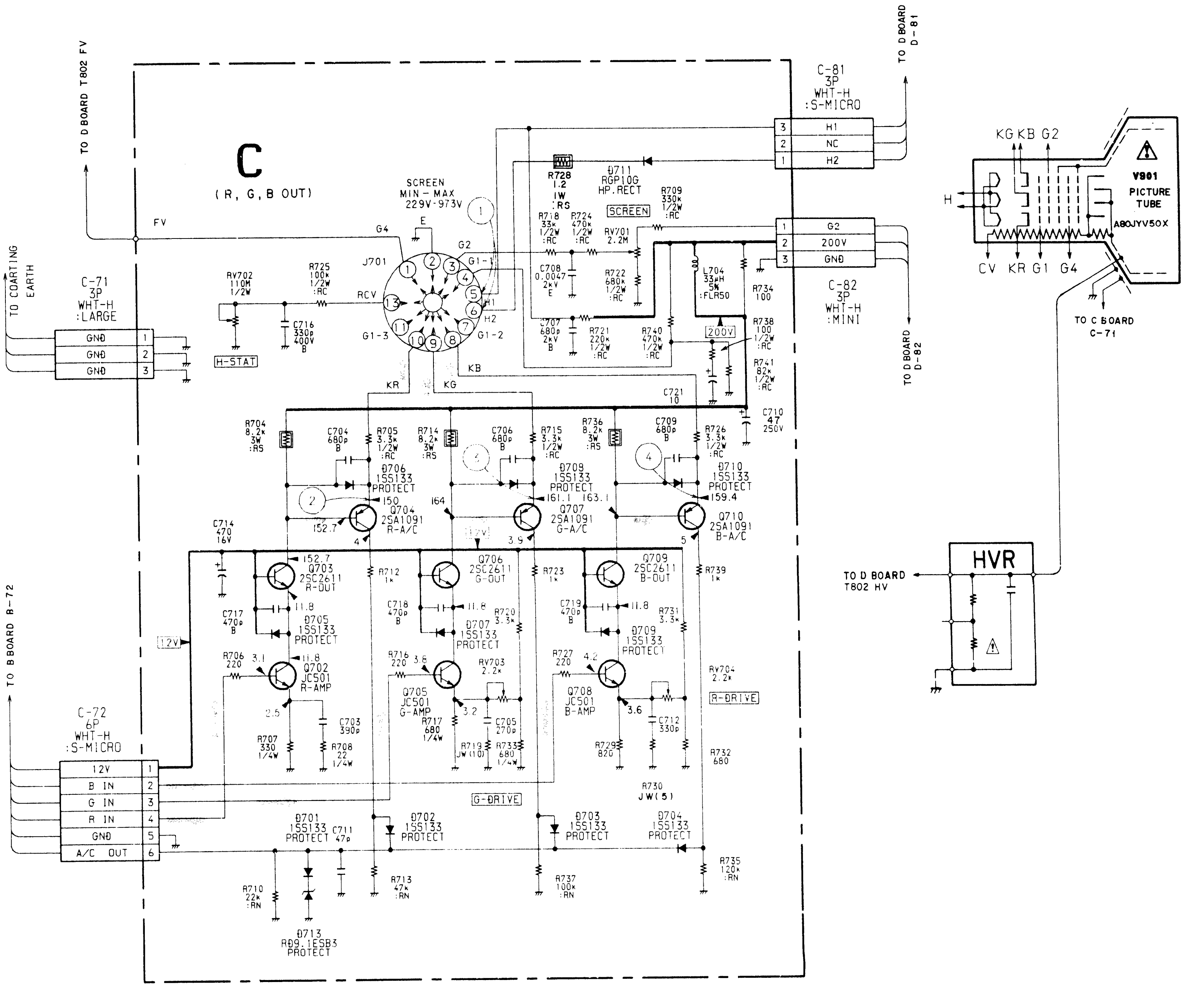
WAVEFORMS OF BOARD D



WAVEFORMS OF BOARD C

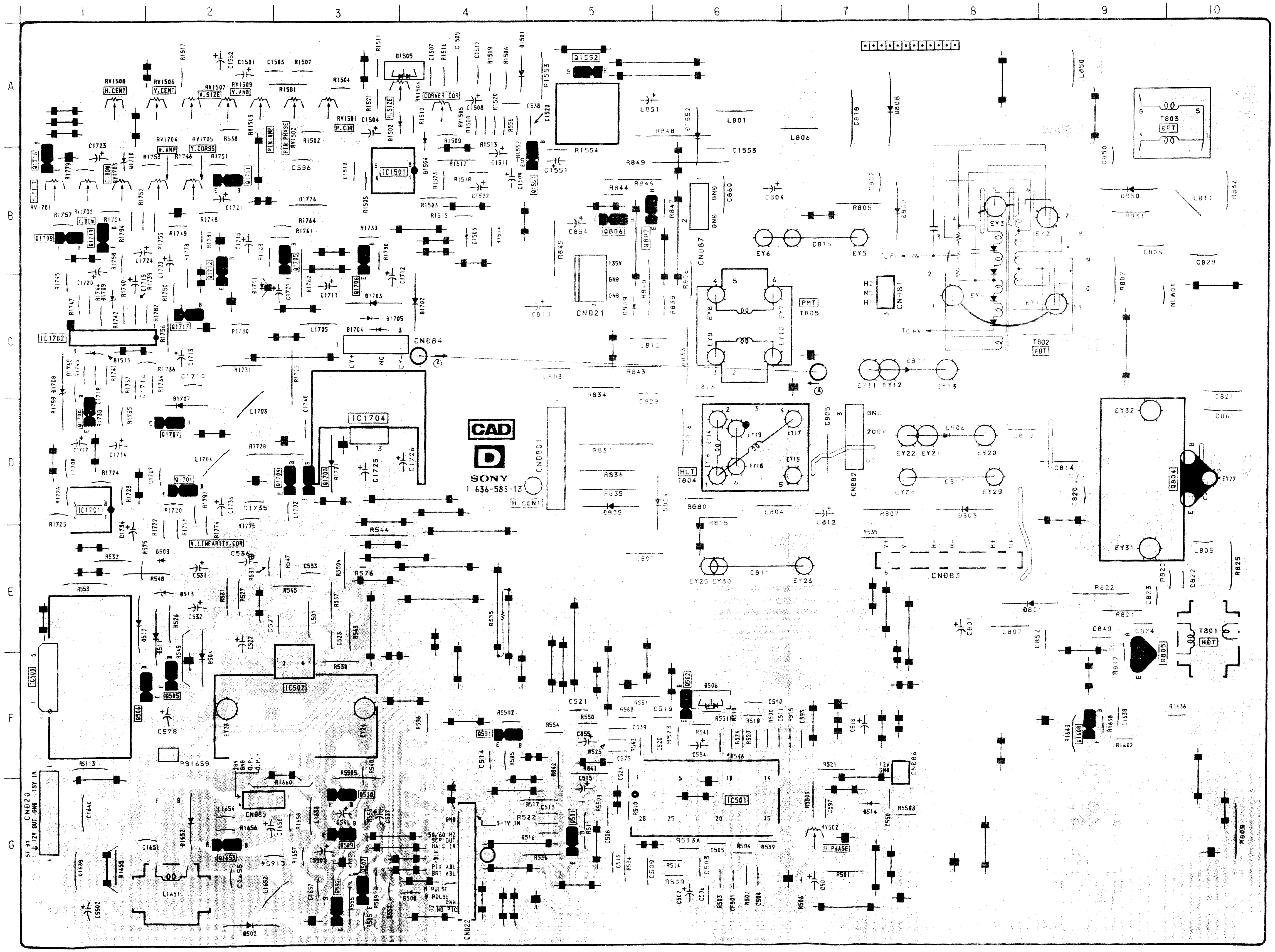






D [JUNGLE, V OUT, PIN OUT, COMPARATOR, FUNCTION]

— D Board —



IC	
IC501	G−6
IC502	F−3
IC503	F−1
IC1501	B−3
IC1701	D−1
IC1702	C−1
IC1704	D−3

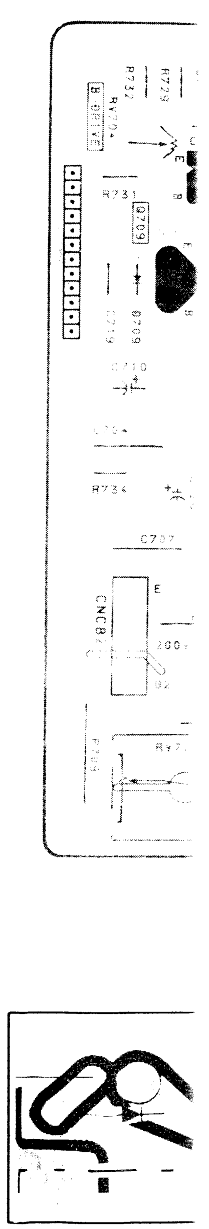
TRANSISTOR	
Q501	G−5
Q502	F−6
Q505	F−2
Q506	F−2
Q507	G−3
Q509	G−3
Q510	G−3
Q591	F−4
Q592	G−3
Q598	F−4
Q804	D−10
Q805	E−9
Q806	B−5
Q807	B−5
Q1551	B−5
Q1552	A−5
Q1608	F−9
Q1653	G−2
Q1701	D−2
Q1703	D−3
Q1704	D−3
Q1705	B−3
Q1706	B−3
Q1707	D−2
Q1708	D−1
Q1709	B−1
Q1710	B−1
Q1711	B−2
Q1712	B−2
Q1716	B−1
Q1717	C−2

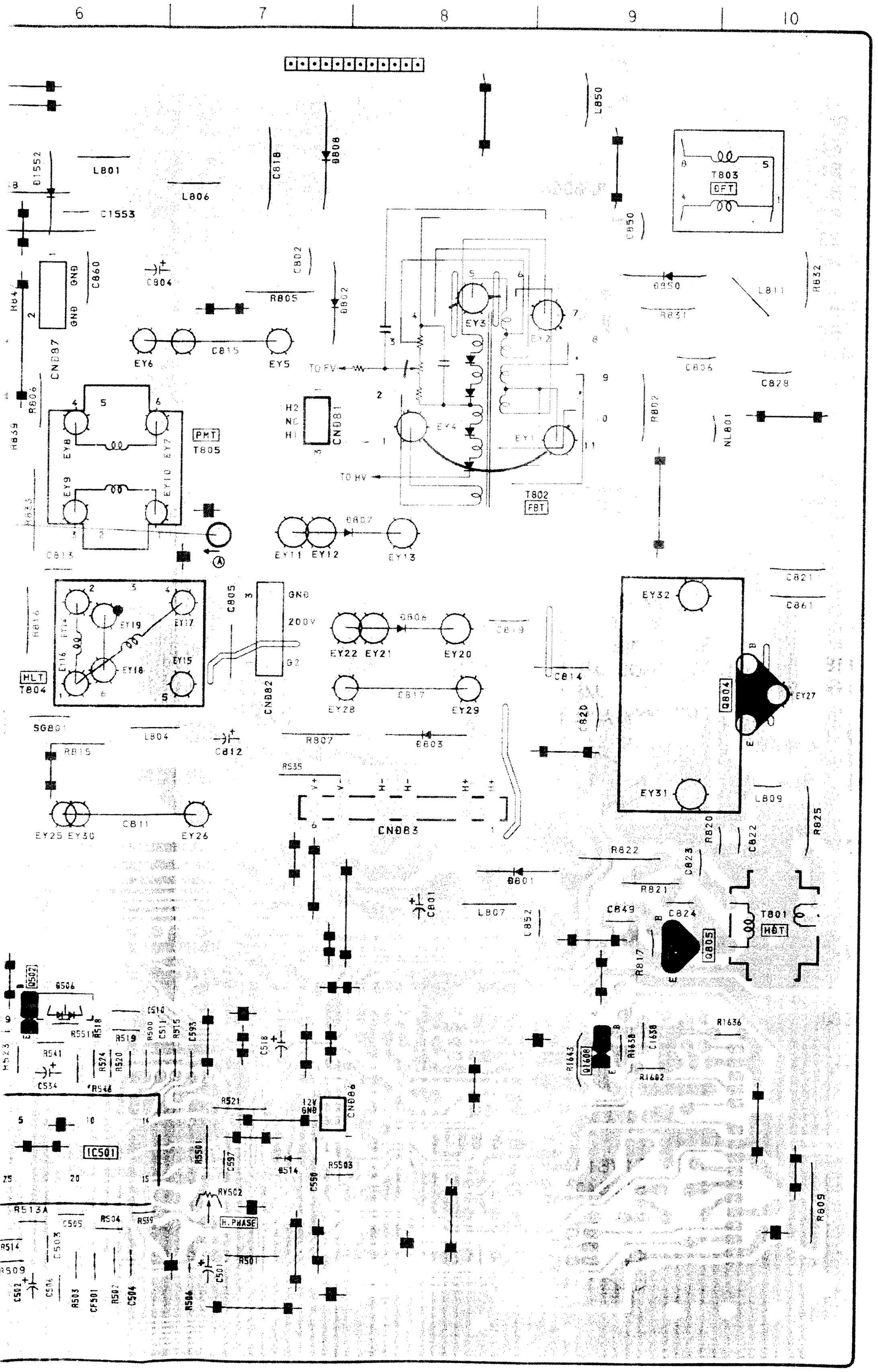
DIODE	
D502	G−2
D504	E−2
D506	F−6
D508	G−4
D511	E−2
D512	E−1
D513	E−2
D801	E−8
D802	B−7
D803	D−8
D804	D−6
D805	D−5
D806	D−8
D807	C−8
D808	A−7
D809	C−5
D850	B−9
D1501	A−4
D1502	A−3
D1503	B−4
D1504	B−4
D1505	A−3
D1515	C−1
D1552	A−6
D1652	G−2
D1701	D−3
D1702	C−4
D1703	C−3
D1704	C−3
D1705	C−3
D1707	D−2
D1708	C−1
D1709	C−1
D1710	B−1

VARIABLE RESISTOR	
RV502	G−7
RV1501	A−3
RV1502	A−3
RV1503	A−2
RV1504	A−4
RV1505	A−4
RV1506	A−2
RV1507	A−2
RV1508	A−1
RV1509	A−2
RV1701	B−1
RV1702	B−1
RV1703	B−1
RV1704	B−2
RB1705	B−2

C [R.G.B. C

— C Board —





IC	
IC501	G-6
IC502	F-3
IC503	F-1
IC1501	B-3
IC1701	D-1
IC1702	C-1
IC1704	D-3

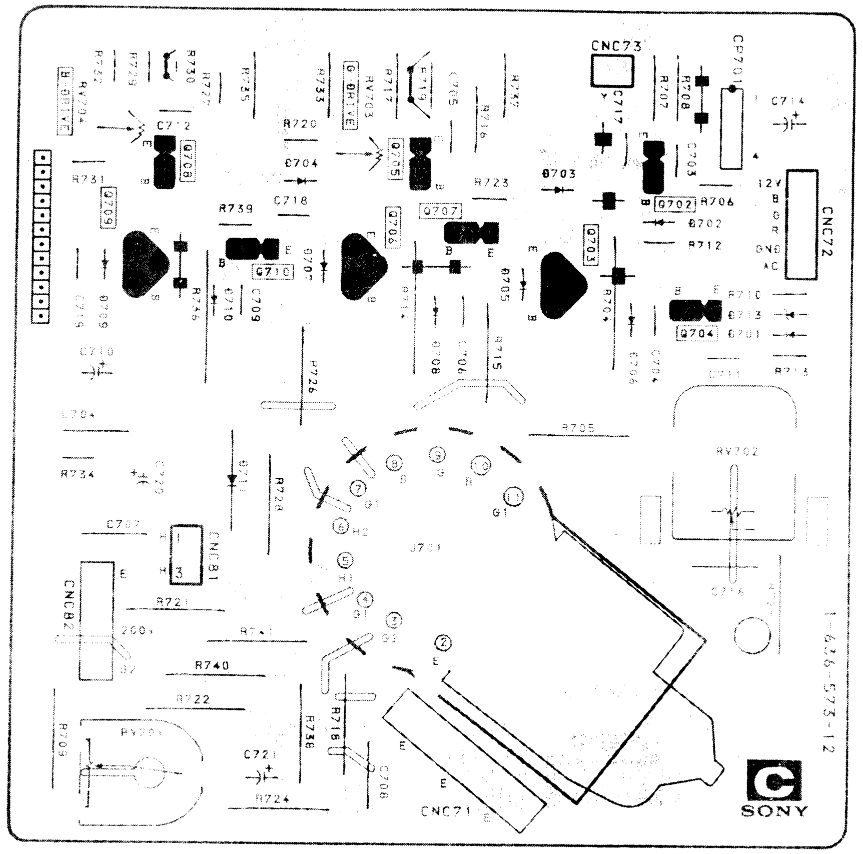
TRANSISTOR	
Q501	G-5
Q502	F-6
Q505	F-2
Q506	F-2
Q507	G-3
Q509	G-3
Q510	G-3
Q591	F-4
Q592	G-3
Q598	F-4
Q804	D-10
Q805	E-9
Q806	B-5
Q807	B-5
Q1551	B-5
Q1552	A-5
Q1608	F-9
Q1653	G-2
Q1701	D-2
Q1703	D-3
Q1704	D-3
Q1705	B-3
Q1706	B-3
Q1707	D-2
Q1708	D-1
Q1709	B-1
Q1710	B-1
Q1711	B-2
Q1712	B-2
Q1716	B-1
Q1717	C-2

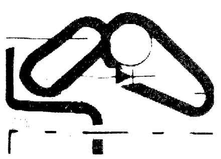
DIODE	
D502	G-2
D504	E-2
D506	F-6
D508	G-4
D511	E-2
D512	E-1
D513	E-2
D801	E-8
D802	B-7
D803	D-8
D804	D-6
D805	D-5
D806	D-8
D807	C-8
D808	A-7
D809	C-5
D850	B-9
D1501	A-4
D1502	A-3
D1503	B-4
D1504	B-4
D1505	A-3
D1515	C-1
D1552	A-6
D1652	G-2
D1701	D-3
D1702	C-4
D1703	C-3
D1704	C-3
D1705	C-3
D1707	D-2
D1708	C-1
D1709	C-1
D1710	B-1

VARIABLE RESISTOR	
RV502	G-7
RV1501	A-3
RV1502	A-3
RV1503	A-2
RV1504	A-4
RV1505	A-4
RV1506	A-2
RV1507	A-2
RV1508	A-1
RV1509	A-2
RV1701	B-1
RV1702	B-1
RV1703	B-1
RV1704	B-2
RB1705	B-2

C [R.G.B. OUT]

— **C Board** —

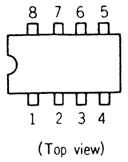




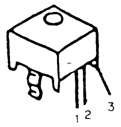
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

5-6. SEMICONDUCTORS

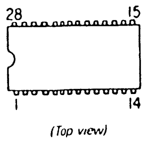
BA4558
RC4558P
SDA2546
TBA129
TEA2014A
TEA2031A
µPC393C



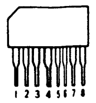
BX-1387
SBX1483-11
SBX1610-11



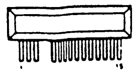
CXA1114P
FCB61C65L-70P
MAB8461P-W208
SAA5246P/E
TDA4580-V6
TDA4580-V7
TDA4650-V3
TDA4650-V4
TDA6200
TEA2028B



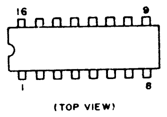
CX20061



DM-38



HCF4052BEY
HD14053BP
MC14053BCP
PCF8574
TC4051BPHB
TC4053BPHB
TDA2545A-V4
TDA4660
TDA8442N3
µPD4053BC



L78S05CV
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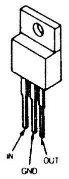
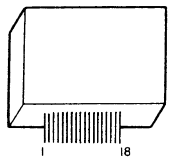
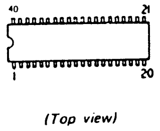
RC7812FA
TDA8341/N6
UPC7812H



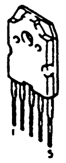
SBX1650-21



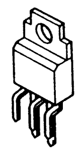
SDA20162-B002
SDA20560-A009
SDA20560-A011



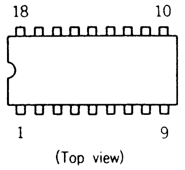
STR90120



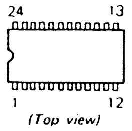
TDA2050



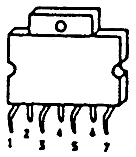
TDA2595/V9



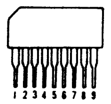
TDA6600-2



TDA8170



µPC4570HA-1



DTA144EK
DTC114EK
DTC124EK
MMST2907A
2SA812
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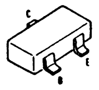
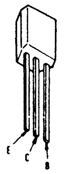
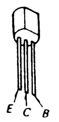
2SA1162G
2SB1295-UL6
2SC1623
2SC2412K-QR
2SC2712
2SC2712G



DTC114ES
DTC124ES
DTC144ES



JA101
JA101TP-Q
JC501
2SA733K
2SA1091-O



2SA1221-L
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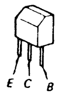
2SC2958-L
2SD774-34



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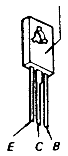
2SD882-P

letter side



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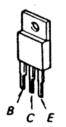
2SD795A-P



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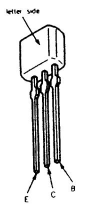
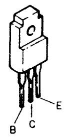


2SC3298B-O



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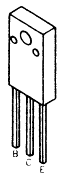

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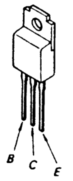

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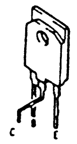

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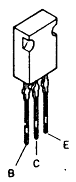

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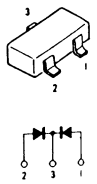

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ERB12
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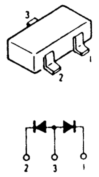
RGP15J
10E-2



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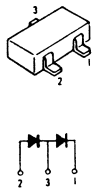

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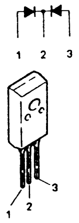

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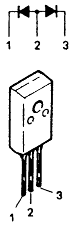

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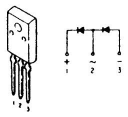

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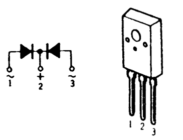

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RD12ES-B2
RD20ES-B3
RD33ES-B1
RD3.0ES-B1
RD3.9ES-B1
RD4.7ES-B2
RD5.6ES-B2
RD5.6ES-B3
RD6.2ES-B2
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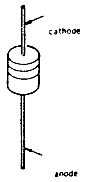
1SS148



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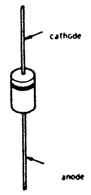

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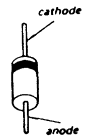

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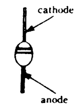

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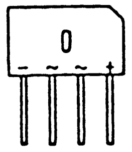

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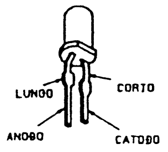

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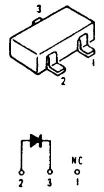
RD5.6MB2
RD6.8MB2



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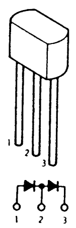

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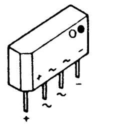

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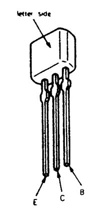

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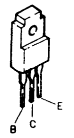

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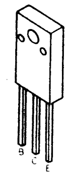

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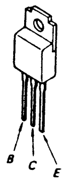

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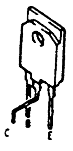

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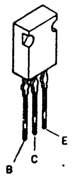

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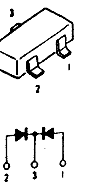

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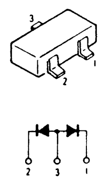
10E-2



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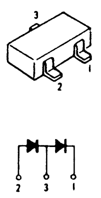

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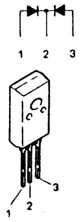

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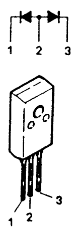

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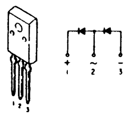

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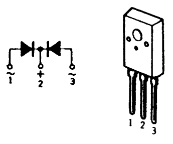

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RD11ES-B3
RD12ES-B2
RD20ES-B3
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RD3.0ES-B1
RD3.9ES-B1
RD4.7ES-B2
RD5.6ES-B2
RD5.6ES-B3
RD6.2ES-B2
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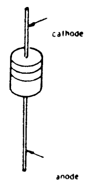

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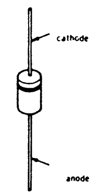

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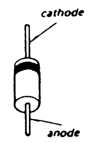

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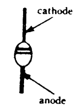

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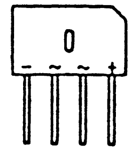

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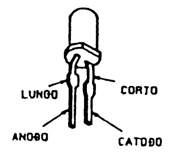

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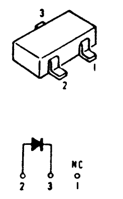
RD5.6MB2
RD6.8MB2



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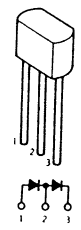

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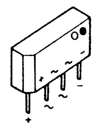


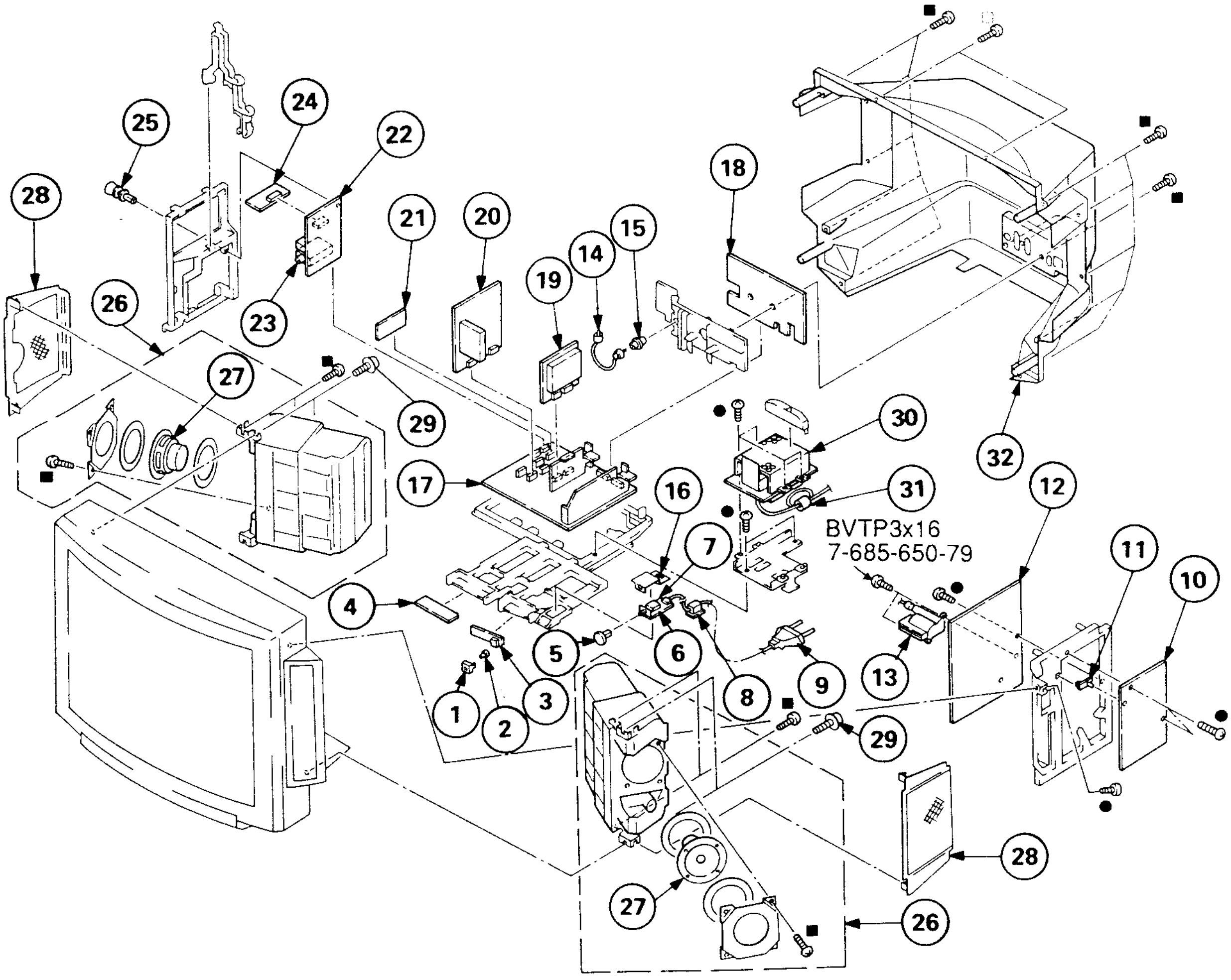
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part-number and no description are not stocked because they are seldom required for routine servicing.
- The sub-parts required to make a pre-assembled part are indicated by collation numbers in the remark column.
- Items marked "*" are not stocked because they are seldom required for routine servicing. Some delay should be expected when ordering these items.

Components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

6-1. CHASSIS

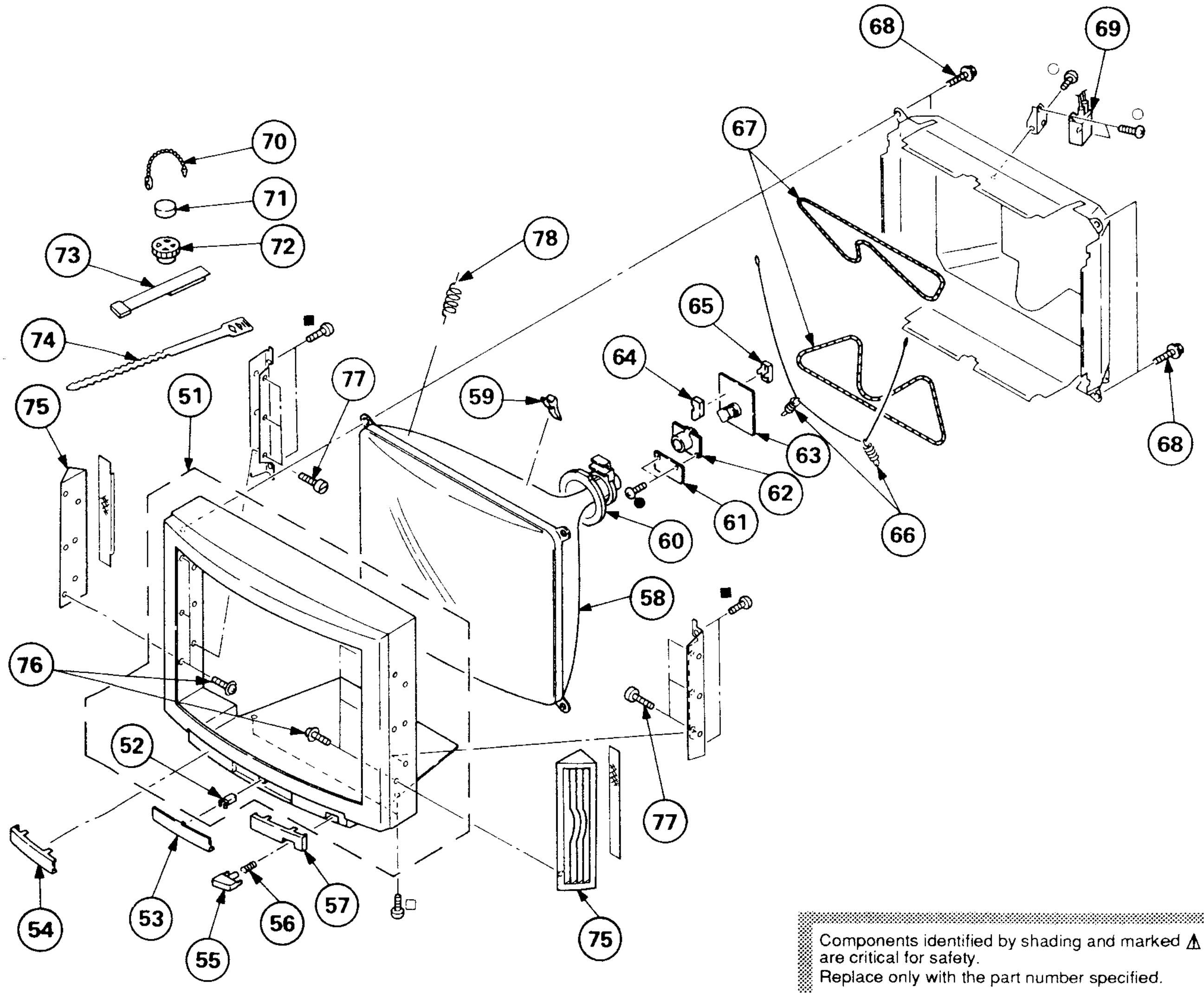
● : BVTP3x12 7-685-648-79
■ : BVTP4x16 7-685-663-79
□ : BVTP4x20 7-685-664-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*4-381-686-01	BRACKET (B), LIGHT GUIDE	
2	*4-374-987-01	GUIDE, LIGHT	
3	*1-636-576-11	H2 BOARD	
4	*1-636-575-11	H1 BOARD	
5	4-386-611-01	COVER, SWITCH	
6	*1-636-574-11	F2 BOARD	
7	⚠.1-571-433-12	SWITCH, PUSH (AC POWER)	
8	⚠.4-389-201-02	HOLDER, AC CORD	
9	⚠.1-575-487-11	CORD,POWER (WITH NOISE FILTER)	
10	*1-636-582-14	F1 BOARD	
11	*3-701-832-00	HINGE, CIRCUIT BOARD	
12	*A-1642-025-A	D BOARD, COMPLETE	
13	⚠.1-439-418-21	TRANSFORMER ASSY, FLYBACK (UX-1610)	
14	*1-690-184-11	CABLE, PIN	
15	⚠.1-563-204-13	SOCKET, ANTENNA (PAL/SECAM)	
16	4-200-274-21	COVER, POWER SWITCH	
17	*A-1649-002-A	K BOARD, COMPLETE	
18	A-1651-027-A	J BOARD, COMPLETE	
19	A-1645-013-A	V BOARD, COMPLETE	
20	A-1621-021-A	B BOARD, COMPLETE	
21	*1-640-584-11	P1 BOARD	
22	*A-1632-015-A	A BOARD, COMPLETE	
23	⚠.1-465-301-11	TUNER, ET (UV-816(PLL))	
24	1-464-964-21	SIF BOARD (IF BLOCK IFG-5.5S)	
25	4-386-618-01	RIVET, T TYPE	
26	X-4200-083-1	BOX ASSY	27
27	1-544-475-11	SPEAKER	
28	X-4200-084-1	BOX FRAME ASSY	
29	4-200-803-01	SCREW, COMBI 5 X 18	
30	⚠.1-413-698-11	G BOARD (ZD-114)	
31	1-543-619-11	CORE, RING	
32	4-200-637-01	COVER, REAR	

6-2. PICTURE TUBE

● : BVTP3x12 7-685-648-79
■ : BVTP4x16 7-685-663-79
○ : BVTP4x12 7-685-661-14
□ : BVTP4x20 7-685-664-79



Components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4200-052-5	CABINET ASSY (WITH BEZEL ASSY)	52
52	4-392-036-01	CATCHER, PUSH	
53	4-200-828-01	DOOR	
54	4-200-435-21	PLATE, ORNAMENTAL	
55	4-200-444-01	BUTTON, POWER	
56	4-329-112-41	SPRING	
57	4-200-443-01	WINDOW, ORNAMENTAL	
58	⚠.8-733-723-05	PICTURE TUBE (A80JYV50X)	
59	3-704-495-01	SPACER, DY	
60	⚠.1-451-315-11	DEFLECTION YOKE (Y34FXA)	
61	*1-636-577-11	VM BOARD	
62	⚠.1-452-468-11	NECK ASSY, PICTURE TUBE (NA321)	
63	*A-1638-010-A	C BOARD, COMPLETE	
64	*4-379-167-01	COVER (MAIN), CV	
65	*4-379-160-01	COVER (REAR LID), CV	
66	*4-376-036-01	SPRING, TENSION	
67	⚠.1-426-433-21	COIL, DEMAGNETIZATION	
68	4-373-263-11	SCREW (M), PT	
69	⚠.1-237-614-13	RESISTOR ASSY, HIGH-VOLTAGE	
70	4-308-870-00	CLIP, LEAD WIRE	
71	1-452-032-00	MAGNET, DISK; 10MM ϕ	
72	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
73	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
74	3-701-007-00	BAND, BINDING	
75	4-200-799-01	BOX, FRONT (BARE)	
76	4-200-804-01	SCREW, PT 4 X 14	
77	4-200-803-01	SCREW, COMBI 5 X 18	
78	4-200-863-01	SPRING,CONDUCT	

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

Components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

- Items marked "*" are not stocked because they are seldom required for routine servicing. Some delay should be expected when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise stated.

RESISTORS

- All resistor values are in Ohms
- F: non-flammable

When indicating parts by reference number, please include the board name.

CAPACITORS

- MF: µF, PF: µµF

COILS

- MMH: mH, UH: µH

REF.NO.	PART NO.	DESCRIPTION			REMARK
	A-1621-021-A	B BOARD, COMPLETE *****************			
		<CONNECTOR>			
B31	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
B32	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
B33	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
B34	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
B72	*1-564-521-11	PLUG, CONNECTOR 6P			
B78	*1-564-518-11	PLUG, CONNECTOR 3P			
		<CAPACITOR>			
C301	1-106-228-00	MYLAR	0.22MF	10%	100V
C302	1-106-228-00	MYLAR	0.22MF	10%	100V
C303	1-124-122-11	ELECT	100MF	20%	50V
C304	1-106-228-00	MYLAR	0.22MF	10%	100V
C305	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C306	1-124-902-00	ELECT	0.47MF	20%	50V
C307	1-124-902-00	ELECT	0.47MF	20%	50V
C308	1-124-902-00	ELECT	0.47MF	20%	50V
C309	1-124-902-00	ELECT	0.47MF	20%	50V
C310	1-106-220-00	MYLAR	0.1MF	10%	100V
C311	1-106-220-00	MYLAR	0.1MF	10%	100V
C312	1-124-902-00	ELECT	0.47MF	20%	50V
C313	1-124-902-00	ELECT	0.47MF	20%	50V
C314	1-124-902-00	ELECT	0.47MF	20%	50V
C315	1-124-903-11	ELECT	1MF	20%	50V
C316	1-124-927-11	ELECT	4.7MF	20%	50V
C317	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C318	1-124-927-11	ELECT	4.7MF	20%	50V
C319	1-124-927-11	ELECT	4.7MF	20%	50V
C320	1-124-910-11	ELECT	47MF	20%	50V
C321	1-124-903-11	ELECT	1MF	20%	50V
C322	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C323	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C324	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C325	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C326	1-124-910-11	ELECT	47MF	20%	50V
C327	1-124-910-11	ELECT	47MF	20%	50V
C328	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C329	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C330	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C331	1-106-220-00	MYLAR	0.1MF	10%	100V
C332	1-106-220-00	MYLAR	0.1MF	10%	100V
C333	1-163-237-91	CERAMIC CHIP	27PF	5%	50V
C335	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C337	1-163-237-91	CERAMIC CHIP	27PF	5%	50V
C338	1-106-375-12	MYLAR	0.022MF	10%	250V
C339	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C340	1-126-103-11	ELECT	470MF	20%	16V
C341	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C342	1-124-903-11	ELECT	1MF	20%	50V
C343	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C344	1-124-903-11	ELECT	1MF	20%	50V
C345	1-106-383-00	MYLAR	0.047MF	10%	100V
C346	1-130-783-00	MYLAR	0.33MF	10%	100V
C347	1-106-220-00	MYLAR	0.1MF	10%	100V
C348	1-106-375-12	MYLAR	0.022MF	10%	250V
C349	1-106-375-12	MYLAR	0.022MF	10%	250V
C350	1-124-927-11	ELECT	4.7MF	20%	50V
C351	1-106-375-12	MYLAR	0.022MF	10%	250V
C352	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C353	1-126-101-11	ELECT	100MF	20%	16V
C354	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C356	1-126-101-11	ELECT	100MF	20%	16V
C357	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C358	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C359	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C360	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C361	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C363	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C365	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
C367	1-102-963-00	CERAMIC	33PF	5%	50V
C370	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C371	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C372	1-124-477-11	ELECT	47MF	20%	16V
C373	1-124-477-11	ELECT	47MF	20%	16V
C374	1-163-090-00	CERAMIC CHIP	7PF	0.25PF	50V
C375	1-163-090-00	CERAMIC CHIP	7PF	0.25PF	50V
C376	1-124-034-51	ELECT	33MF	20%	16V
C377	1-124-119-00	ELECT	330MF	20%	16V
C378	1-124-034-51	ELECT	33MF	20%	16V
C379	1-163-090-00	CERAMIC CHIP	7PF	0.25PF	50V
C380	1-163-090-00	CERAMIC CHIP	7PF	0.25PF	50V
C381	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C382	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C383	1-163-197-00	CERAMIC CHIP	470PF	5%	50V
C384	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C385	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C386	1-163-377-91	CERAMIC CHIP	100PF	5%	50V
C387	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C388	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C398	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C399	1-126-101-11	ELECT	100MF	20%	16V
C414	1-102-961-00	CERAMIC	27PF	5%	50V
C415	1-102-961-00	CERAMIC	27PF	5%	50V
C1301	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C1302	1-163-243-91	CERAMIC CHIP	47PF	5%	50V
C1303	1-102-961-00	CERAMIC	27PF	5%	50V

B

<TRIMMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CT301	1-141-392-11	CAP, VAR, TRIMMER (1 GANG)	
CT302	1-141-392-11	CAP, VAR, TRIMMER (1 GANG)	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D301	8-719-911-19	DIODE 1SS119	
D302	8-719-911-19	DIODE 1SS119	
D303	8-719-911-19	DIODE 1SS119	
D304	8-719-911-19	DIODE 1SS119	
D305	8-719-911-19	DIODE 1SS119	
D306	8-719-980-78	DIODE ERA83-006	
D307	8-719-110-23	DIODE RD11ES-B3	
D309	8-719-911-19	DIODE 1SS119	
D310	8-719-110-23	DIODE RD11ES-B3	
D311	8-719-110-23	DIODE RD11ES-B3	
D312	8-719-110-23	DIODE RD11ES-B3	
D313	8-719-911-19	DIODE 1SS119	
D314	8-719-911-19	DIODE 1SS119	
D315	8-719-911-19	DIODE 1SS119	
D316	8-719-911-19	DIODE 1SS119	
D317	8-719-911-19	DIODE 1SS119	
D318	8-719-911-19	DIODE 1SS119	
D319	8-719-911-19	DIODE 1SS119	
D320	8-719-911-19	DIODE 1SS119	
D321	8-719-109-90	DIODE RD5.6ES-B3	
D322	8-719-911-19	DIODE 1SS119	
D323	8-719-911-19	DIODE 1SS119	
D324	8-719-800-76	DIODE 1SS226	
D325	8-719-800-76	DIODE 1SS226	
D326	8-719-800-76	DIODE 1SS226	
D327	8-719-911-19	DIODE 1SS119	
D329	8-719-109-62	DIODE RD3.0ES-B1	
D330	8-719-911-19	DIODE 1SS119	
D331	8-719-911-19	DIODE 1SS119	
D332	8-719-911-19	DIODE 1SS119	
D333	8-719-911-19	DIODE 1SS119	
D334	8-719-911-19	DIODE 1SS119	
D335	8-719-911-19	DIODE 1SS119	
D336	8-719-911-19	DIODE 1SS119	
D337	8-719-911-19	DIODE 1SS119	
D338	8-719-911-19	DIODE 1SS119	
D339	8-719-911-19	DIODE 1SS119	
D340	8-719-911-19	DIODE 1SS119	
D341	8-719-911-19	DIODE 1SS119	

<DELAY LINE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
DL301	1-415-613-11	DELAY LINE, Y	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC301	8-759-517-43	IC TDA4580/V7	
IC302	8-759-980-60	IC TDA8442N3	
IC303	8-759-505-39	IC TDA4660V2	
IC304	8-759-521-22	IC TDA4650/V4	
IC306	8-759-501-49	IC HCF4052BEY	
IC308	8-752-006-12	IC CX20061	
IC1301	1-235-534-11	CONTROL MODULE, PICTURE	
IC1312	8-741-650-22	IC SBX1650-22	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L301	1-410-868-11	INDUCTOR 4.7UH	
L303	1-404-554-11	COIL	
L304	1-410-868-11	INDUCTOR 4.7UH	
L305	1-408-402-00	INDUCTOR 2.7UH	
L306	1-410-868-11	INDUCTOR 4.7UH	
L308	1-404-495-00	COIL	
L309	1-408-415-00	INDUCTOR 33UH	
L312	1-404-495-00	COIL	
L313	1-404-554-11	COIL	
L314	1-408-409-00	INDUCTOR 10UH	
L315	1-410-868-11	INDUCTOR 4.7UH	
L316	1-408-397-00	INDUCTOR 1UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q300	8-729-216-22	TRANSISTOR 2SA1162-G	
Q301	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q302	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q303	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q304	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q305	8-729-901-06	TRANSISTOR DTA144EK	
Q306	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q307	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q308	8-729-901-00	TRANSISTOR DTC124EK	
Q310	8-729-901-00	TRANSISTOR DTC124EK	
Q311	8-729-901-00	TRANSISTOR DTC124EK	
Q312	8-729-216-22	TRANSISTOR 2SA1162-G	
Q313	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q320	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q321	8-729-216-22	TRANSISTOR 2SA1162-G	
Q322	8-729-216-22	TRANSISTOR 2SA1162-G	
Q323	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q324	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q327	8-729-216-22	TRANSISTOR 2SA1162-G	
Q328	8-729-216-22	TRANSISTOR 2SA1162-G	
Q329	8-729-216-22	TRANSISTOR 2SA1162-G	
Q330	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q331	8-729-216-22	TRANSISTOR 2SA1162-G	
Q332	8-729-216-22	TRANSISTOR 2SA1162-G	
Q333	8-729-901-00	TRANSISTOR DTC124EK	
Q334	8-729-901-00	TRANSISTOR DTC124EK	
Q335	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q336	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q337	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q338	8-729-216-22	TRANSISTOR 2SA1162-G	
Q339	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q340	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q341	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q342	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q343	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q344	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q345	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q346	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q347	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q348	8-729-901-00	TRANSISTOR DTC124EK	
Q1302	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q1303	8-729-920-74	TRANSISTOR 2SC2412K-QR	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R300	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R301	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R302	1-216-033-00	METAL GLAZE 220 5% 1/10W	

B

REF.NO.	PART NO.	DESCRIPTION				REMARK
R303	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R304	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R305	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R306	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R307	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R308	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R309	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R310	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R311	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R312	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R313	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R314	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R315	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R316	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R317	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R318	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R319	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R320	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R321	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R322	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R323	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R324	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R325	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R326	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R327	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R328	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R329	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R330	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R331	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R332	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R333	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R335	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R336	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R337	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R338	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R339	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R340	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R341	1-216-111-00	METAL GLAZE	390K	5%	1/10W	
R342	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R343	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R344	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R345	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R346	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R347	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R348	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R349	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R350	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R351	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R352	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R353	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R355	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R356	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R357	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R359	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R360	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R361	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R362	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R363	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R364	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R365	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R366	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R367	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R368	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R369	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R370	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R371	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R372	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R373	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R374	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R375	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R376	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R377	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R378	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R379	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R380	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R381	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R382	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R383	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R384	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R385	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R386	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R387	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R388	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R389	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R390	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R391	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R392	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R393	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R394	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R395	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R396	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R397	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R398	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R399	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R400	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W	
R402	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R403	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R404	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R405	1-216-208-00	METAL GLAZE	2.7K	5%	1/8W	
R406	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R407	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R408	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R409	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R410	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R411	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R412	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R413	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R414	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R415	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R416	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R417	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R418	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R419	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R420	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R421	1-216-208-00	METAL GLAZE	2.7K	5%	1/8W	
R422	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R423	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R424	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R425	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R426	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R427	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R428	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R429	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R430	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R431	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R432	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R434	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	

B P1 F1 F2

Components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R435	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R440	1-246-543-00	CARBON	820K	5%	1/4W	
R480	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1302	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1303	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1304	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1305	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1306	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1307	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
		<VARIABLE RESISTOR>				
RV301	1-238-012-11	RES, ADJ, CARBON 1K				
		<CRYSTAL>				
X301	1-567-307-11	OSCILLATOR, CRYSTAL				
X302	1-567-131-00	OSCILLATOR, CRYSTAL				
**						
	*1-640-584-11	P1 BOARD ********				
		<CONNECTOR>				
P96	*1-565-393-11	CONNECTOR, BOARD TO BOARD				
P97	*1-565-393-11	CONNECTOR, BOARD TO BOARD				
**						
	*1-636-582-14	F1 BOARD ********				
	*4-341-751-01	EYELET				
	*4-341-752-01	EYELET				
		<CAPACITOR>				
C651 ⚠	1-136-519-11	FILM	0.47MF	20%	300V	
C652 ⚠	1-136-518-11	FILM	0.33MF	20%	300V	
C658 ⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C659 ⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C660 ⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C661 ⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C662 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
C663 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
C664	1-162-599-12	CERAMIC	0.0047MF		250V	
C665	1-125-555-11	ELECT	330MF	20%	400V	
C671	1-124-911-11	ELECT	220MF	20%	50V	
C672	1-124-556-11	ELECT	2200MF	20%	16V	
C673	1-124-907-11	ELECT	10MF	20%	50V	
C674	1-124-473-11	ELECT	1000MF	20%	10V	
C675	1-124-910-11	ELECT	47MF	20%	50V	
C676	1-124-907-11	ELECT	10MF	20%	50V	
C677	1-126-176-11	ELECT	220MF	20%	10V	
C678	1-124-910-11	ELECT	47MF	20%	50V	
C679 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
		<DIODE>				
D651 ⚠	8-719-946-90	DIODE KBU4JL-6088				
D670 ⚠	8-719-521-10	DIODE S1VB10-S				
D671 ⚠	8-719-521-10	DIODE S1VB10-S				
D672	8-719-109-90	DIODE RD5.6ES-B3				
D673	8-719-911-19	DIODE 1SS119				

REF.NO.	PART NO.	DESCRIPTION				REMARK
D674	8-719-911-19	DIODE 1SS119				
D675	8-719-911-19	DIODE 1SS119				
D676	8-719-911-19	DIODE 1SS119				
D677	8-719-911-19	DIODE 1SS119				
		<CONNECTOR>				
F1-1	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
F1-4	*1-564-506-11	PLUG, CONNECTOR 3P				
F1-22	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)				
F1-62	*1-566-664-11	PIN, CONNECTOR 4P				
F1-63	*1-564-509-11	PLUG, CONNECTOR 6P				
F1-65	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
F1-68	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
F1-81	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P				
F1-86	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)				
		<IC>				
IC671	8-759-982-13	IC RC7812FA				
		<TRANSFORMER>				
LF651 ⚠	1-424-436-11	TRANSFORMER, LINE FILTER				
LF652 ⚠	1-424-436-11	TRANSFORMER, LINE FILTER				
LF653 ⚠	1-421-592-41	TRANSFORMER, LINE FILTER				
T671 ⚠	1-450-263-11	TRANSFORMER, POWER				
		<TRANSISTOR>				
Q671	8-729-109-53	TRANSISTOR 2SD795A-P				
Q672	8-729-900-36	TRANSISTOR DTC124ES				
Q673	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q674	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q675	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R651 ⚠	1-205-949-11	WIREWOUND	1.8	5%	10W	F
R652 ⚠	1-205-949-11	WIREWOUND	1.8	5%	10W	F
R653 ⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R658 ⚠	1-218-265-91	METAL GLAZE	8.2M	5%	1W	
R671 ⚠	1-249-377-91	CARBON	0.47	5%	1/4W	F
R672 ⚠	1-249-377-91	CARBON	0.47	5%	1/4W	F
R674	1-249-423-11	CARBON	3.3K	5%	1/4W	
R675	1-249-421-11	CARBON	2.2K	5%	1/4W	
R676	1-249-425-11	CARBON	4.7K	5%	1/4W	
R678	1-249-423-11	CARBON	3.3K	5%	1/4W	
R680	1-249-431-11	CARBON	15K	5%	1/4W	
R681	1-249-419-11	CARBON	1.5K	5%	1/4W	
		<RELAY>				
RY651 ⚠	1-515-579-11	RELAY				
		<THERMISTOR>				
THP651 ⚠	1-808-059-32	THERMISTOR, POSITIVE				
**						
	*1-636-574-11	F2 BOARD ********				
	*4-341-752-01	EYELET				

F2 **A** **SIF**

Components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
F61	*1-566-664-11	PIN, CONNECTOR 4P	
F62	*1-566-664-11	PIN, CONNECTOR 4P	
		<FUSE>	
F451 ⚠	1-532-350-11	FUSE, TIME-LAG 4A/250V	
	1-533-230-11	HOLDER, FUSE; F451	
		<SWITCH>	
S451 ⚠	1-571-433-12	SWITCH, PUSH (AC POWER)	

****

*A-1632-015-A A BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
A11	*1-565-393-11	CONNECTOR, BOARD TO BOARD	
A12	*1-565-393-11	CONNECTOR, BOARD TO BOARD	
A13	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P	
A16	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
A17	*1-564-886-21	PLUG, CONNECTOR 9P	
A19	*1-564-881-11	PLUG, CONNECTOR 4P	
		<CAPACITOR>	
C101	1-126-233-11	ELECT 22MF 20% 50V	
C102	1-126-103-11	ELECT 470MF 20% 16V	
C104	1-124-477-11	ELECT 47MF 20% 25V	
C106	1-126-233-11	ELECT 22MF 20% 50V	
C108	1-136-165-00	FILM 0.1MF 5% 50V	
C109	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C111	1-124-925-11	ELECT 2.2MF 20% 50V	
C115	1-124-925-11	ELECT 2.2MF 20% 50V	
C127	1-124-122-11	ELECT 100MF 20% 50V	
C128	1-124-910-11	ELECT 47MF 20% 50V	
C129	1-124-910-11	ELECT 47MF 20% 50V	
C138	1-136-165-00	FILM 0.1MF 5% 50V	
C171	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C172	1-163-005-11	CERAMIC CHIP 470PF 10% 50V	
C177	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C181	1-101-004-00	CERAMIC 0.01MF 50V	
		<IC>	
IC103	8-759-979-62	IC PCF8574	
		<COIL>	
L100	1-410-683-31	INDUCTOR 560UH	
L101	1-408-225-00	INDUCTOR 3.3UH	
L102	1-408-413-00	INDUCTOR 22UH	
L107	1-408-397-00	INDUCTOR 1UH	
L131	1-410-884-21	INDUCTOR 10UH	
		<TRANSISTOR>	
Q113	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q114	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q115	8-729-230-49	TRANSISTOR 2SC2712-YG	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q116	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q125	8-729-900-89	TRANSISTOR DTC144ES	
Q126	8-729-901-06	TRANSISTOR DTA144EK	
Q181	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<RESISTOR>	
JR252	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR253	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR255	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR256	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR257	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR258	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JW32	1-249-404-00	CARBON 82 5% 1/4W	
R101	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R105	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R107	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R108	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R110	1-249-429-11	CARBON 10K 5% 1/4W	
R111	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R118	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R128	1-216-027-00	METAL GLAZE 120 5% 1/10W	
R129	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R130	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R157	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R158	1-249-405-11	CARBON 100 5% 1/4W	
R159	1-249-405-11	CARBON 100 5% 1/4W	
R161	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R162	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R163	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
R164	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R165	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R167	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R168	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R169	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R181	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R182	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R193	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R194	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R195	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R196	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
		<TUNER>	
TU101 ⚠	1-465-301-11	TUNER, ET (UV-816(PLL))	
		<IF BLOCK>	
VIF101	1-466-154-11	IF BLOCK (IFG-389S)	

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1-464-964-21 SIF BOARD (IF BLOCK IFG-5.5S)
****

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*1-565-488-11	CONNECTOR, BOARD TO BOARD 12P	
		<CAPACITOR>	
C1	1-163-031-91	CERAMIC CHIP 0.01MF 50V	
C2	1-163-031-91	CERAMIC CHIP 0.01MF 50V	
C3	1-163-031-91	CERAMIC CHIP 0.01MF 50V	
C4	1-163-031-91	CERAMIC CHIP 0.01MF 50V	
C5	1-163-031-91	CERAMIC CHIP 0.01MF 50V	

SIF C

REF.NO.	PART NO.	DESCRIPTION			REMARK
C6	1-163-031-91	CERAMIC CHIP	0.01MF		50V
C7	1-124-903-11	ELECT	1MF	20%	50V
C8	1-124-907-11	ELECT	10MF	20%	50V
C9	1-130-471-00	MYLAR	0.001MF	5%	50V
C10	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C11	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C12	1-136-298-00	FILM	0.0033MF	2%	100V
C13	1-124-477-11	ELECT	47MF	20%	16V
C14	1-124-477-11	ELECT	47MF	20%	16V
C15	1-124-477-11	ELECT	47MF	20%	16V
C16	1-124-477-11	ELECT	47MF	20%	16V
C17	1-124-907-11	ELECT	10MF	20%	50V
C18	1-106-367-00	MYLAR	0.01MF	10%	400V
C19	1-106-367-00	MYLAR	0.01MF	10%	400V
C20	1-126-233-11	ELECT	22MF	20%	50V
C21	1-126-233-11	ELECT	22MF	20%	50V
C22	1-106-220-00	MYLAR	0.1MF	10%	100V
C23	1-106-228-00	MYLAR	0.22MF	10%	100V
C24	1-124-034-51	ELECT	33MF	20%	16V
C25	1-106-375-12	MYLAR	0.022MF	10%	250V
C26	1-106-383-00	MYLAR	0.047MF	10%	100V
C27	1-124-903-11	ELECT	1MF	20%	50V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C29	1-124-903-11	ELECT	1MF	20%	50V
C30	1-124-903-11	ELECT	1MF	20%	50V
C31	1-106-367-00	MYLAR	0.01MF	10%	400V
C32	1-130-479-00	MYLAR	0.0047MF	5%	50V
C33	1-163-081-00	CERAMIC CHIP	0.22MF		25V
C34	1-106-228-00	MYLAR	0.22MF	10%	100V
C35	1-124-907-11	ELECT	10MF	20%	50V
C36	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C37	1-124-477-11	ELECT	47MF	20%	16V
C38	1-124-477-11	ELECT	47MF	20%	16V
C39	1-163-133-00	CERAMIC CHIP	470PF	5%	50V

<FILTER>

CDA1	1-404-751-11	DISCRIMINATOR, CERAMIC
CDA2	1-404-750-11	DISCRIMINATOR, CERAMIC
SFT1	1-527-840-00	FILTER, CERAMIC
SFT2	1-527-839-00	FILTER, CERAMIC

<DIODE>

D3	8-719-400-18	DIODE MA152WK

<IC>

IC1	8-759-003-90	IC TBA129
IC2	8-759-003-90	IC TBA129
IC3	8-759-030-48	IC TDA6600-2
IC4	8-759-513-48	IC TDA2595/V9

<COIL>

L1	1-408-410-00	INDUCTOR	12UH
L2	1-408-410-00	INDUCTOR	12UH
L3	1-410-064-11	INDUCTOR	2.7MMH
L4	1-408-421-00	INDUCTOR	100UH
L5	1-408-421-00	INDUCTOR	100UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q2	8-729-901-00	TRANSISTOR DTC124EK	
Q3	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4	8-729-901-00	TRANSISTOR DTC124EK	

<RESISTOR>

JC1	1-216-296-00	METAL GLAZE	0	5%	1/8W
JC2	1-216-296-00	METAL GLAZE	0	5%	1/8W
JC3	1-216-296-00	METAL GLAZE	0	5%	1/8W
JC4	1-216-296-00	METAL GLAZE	0	5%	1/8W
JC5	1-216-296-00	METAL GLAZE	0	5%	1/8W
R1	1-216-045-00	METAL GLAZE	680	5%	1/10W
R2	1-216-043-00	METAL GLAZE	560	5%	1/10W
R3	1-216-043-00	METAL GLAZE	560	5%	1/10W
R5	1-216-045-00	METAL GLAZE	680	5%	1/10W
R6	1-216-043-00	METAL GLAZE	560	5%	1/10W
R7	1-216-043-00	METAL GLAZE	560	5%	1/10W
R9	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R11	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R12	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R13	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R15	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R16	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R17	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R18	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R19	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R20	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R22	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R24	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R25	1-216-077-00	METAL GLAZE	15K	5%	1/10W

<VARIABLE RESISTOR>

RV1	1-238-547-11	RES, ADJ, CARBON 10K
RV2	1-238-549-11	RES, ADJ, CARBON 47K

****

*A-1638-010-A C BOARD, COMPLETE
****

*4-379-160-01 COVER (REAR LID), CV
*4-379-167-01 COVER (MAIN), CV

<CONNECTOR>

C71	1-506-348-99	PIN, CONNECTOR 3P
C72	*1-564-509-11	PLUG, CONNECTOR 6P
C81	*1-564-506-11	PLUG, CONNECTOR 3P
C82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P

<CAPACITOR>

C703	1-102-822-00	CERAMIC	390PF	5%	50V
C704	1-102-116-00	CERAMIC	680PF	10%	50V
C705	1-102-980-00	CERAMIC	270PF	5%	50V
C706	1-102-116-00	CERAMIC	680PF	10%	50V
C707	1-162-116-00	CERAMIC	680PF	10%	2KV
C708	1-162-114-00	CERAMIC	0.0047MF		2KV
C709	1-102-116-00	CERAMIC	680PF	10%	50V
C710	1-123-950-00	ELECT	47MF	20%	250V
C711	1-101-880-00	CERAMIC	47PF	5%	50V
C712	1-102-820-00	CERAMIC	330PF	5%	50V
C714	1-126-103-11	ELECT	470MF	20%	16V
C716	1-162-622-11	CERAMIC	330PF	10%	400V
C717	1-102-114-00	CERAMIC	470PF	10%	50V
C718	1-102-114-00	CERAMIC	470PF	10%	50V
C719	1-102-114-00	CERAMIC	470PF	10%	50V

REF.NO.	PART NO.	DESCRIPTION				REMARK
C721	1-124-907-11	ELECT	10MF	20%	50V	
		<DIODE>				
D701	8-719-911-19	DIODE 1SS119				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
D707	8-719-911-19	DIODE 1SS119				
D708	8-719-911-19	DIODE 1SS119				
D709	8-719-911-19	DIODE 1SS119				
D710	8-719-911-19	DIODE 1SS119				
D711	8-719-300-33	DIODE RU-3AM				
D713	8-719-110-14	DIODE RD9.1ES-B3				
		<JACK>				
J701	1-526-990-13	SOCKET, PICTURE TUBE				
		<COIL>				
L704	1-410-878-11	INDUCTOR	33UH			
		<TRANSISTOR>				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q703	8-729-326-11	TRANSISTOR 2SC2611				
	*4-386-664-01	SPRING; Q703				
Q704	8-729-200-17	TRANSISTOR 2SA1091-O				
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q706	8-729-326-11	TRANSISTOR 2SC2611				
	*4-386-664-01	SPRING; Q706				
Q707	8-729-200-17	TRANSISTOR 2SA1091-O				
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q709	8-729-326-11	TRANSISTOR 2SC2611				
	*4-386-664-01	SPRING; Q709				
Q710	8-729-200-17	TRANSISTOR 2SA1091-O				
		<RESISTOR>				
R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-249-411-11	CARBON	330	5%	1/4W	
R708	1-249-397-11	CARBON	22	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R710	1-215-453-00	METAL	22K	1%	1/4W	
R712	1-249-417-11	CARBON	1K	5%	1/4W	
R713	1-215-461-00	METAL	47K	1%	1/4W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-202-824-00	SOLID	3.3K	10%	1/2W	
R716	1-249-409-11	CARBON	220	5%	1/4W	
R717	1-249-415-11	CARBON	680	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R720	1-249-423-11	CARBON	3.3K	5%	1/4W	
R721	1-202-842-11	SOLID	220K	10%	1/2W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-202-846-00	SOLID	470K	10%	1/2W	
R725	1-202-838-00	SOLID	100K	10%	1/2W	
R726	1-202-824-00	SOLID	3.3K	10%	1/2W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R727	1-249-409-11	CARBON	220	5%	1/4W	
R728	1-216-350-11	METAL OXIDE	1.2	5%	1W	F
R729	1-249-416-11	CARBON	820	5%	1/4W	
R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
R732	1-249-415-11	CARBON	680	5%	1/4W	
R733	1-249-415-11	CARBON	680	5%	1/4W	
R734	1-249-405-11	CARBON	100	5%	1/4W	
R735	1-214-915-00	METAL	120K	1%	W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R737	1-214-913-00	METAL	100K	1%	W	
R738	1-202-549-00	SOLID	100	10%	1/2W	
R739	1-249-417-11	CARBON	1K	5%	1/4W	
R740	1-202-846-00	SOLID	470K	10%	1/2W	
R741	1-202-837-00	SOLID	82K	10%	1/2W	
		<VARIABLE RESISTOR>				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702	1-230-619-11	RES, ADJ, METAL GLAZE 110M				
RV703	1-228-991-00	RES, ADJ, CARBON 2.2K				
RV704	1-228-991-00	RES, ADJ, CARBON 2.2K				

****

*A-1642-025-A D BOARD, COMPLETE
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	*1-559-991-41	CONNECTOR ASSY 1P				
	*4-341-751-01	EYELET (EY5-EY10,EY14-EY17,EY26-EY30)				
	*4-341-752-01	EYELET (EY1-EY4,EY12,EY13,EY20,EY21, EY23,EY24,EY31,EY32)				
		<CAPACITOR>				
C501	1-124-927-11	ELECT	4.7MF	20%	50V	
C502	1-124-927-11	ELECT	4.7MF	20%	50V	
C503	1-106-371-00	MYLAR	0.015MF	10%	400V	
C504	1-101-361-00	CERAMIC	150PF	5%	50V	
C505	1-130-473-00	MYLAR	0.0015MF	5%	50V	
C506	1-106-228-00	MYLAR	0.22MF	10%	100V	
C508	1-106-375-12	MYLAR	0.022MF	10%	250V	
C509	1-106-220-00	MYLAR	0.1MF	10%	100V	
C510	1-161-959-00	CERAMIC	22PF	10%	500V	
C511	1-108-686-11	MYLAR	0.0033MF	10%	100V	
C513	1-108-680-11	MYLAR	0.001MF	10%	100V	
C514	1-106-228-00	MYLAR	0.22MF	10%	100V	
C515	1-124-903-11	ELECT	1MF	20%	50V	
C516	1-102-112-00	CERAMIC	330PF	10%	50V	
C518	1-124-902-00	ELECT	0.47MF	20%	50V	
C519	1-136-173-00	FILM	0.47MF	5%	50V	
C520	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C521	1-106-220-00	MYLAR	0.1MF	10%	100V	
C522	1-126-105-11	ELECT	1000MF	20%	35V	
C523	1-108-680-11	MYLAR	0.001MF	10%	100V	
C524	1-108-686-11	MYLAR	0.0033MF	10%	100V	
C525	1-102-973-00	CERAMIC	100PF	5%	50V	
C527	1-106-220-00	MYLAR	0.1MF	10%	100V	
C531	1-126-104-11	ELECT	470MF	20%	25V	
C532	1-124-122-11	ELECT	100MF	20%	50V	
C533	1-106-216-00	MYLAR	0.068MF	10%	100V	
C534	1-124-120-11	ELECT	220MF	20%	25V	
C536	1-131-365-00	TANTALUM	10MF	10%	16V	
C537	1-124-903-11	ELECT	1MF	20%	50V	
C538	1-108-680-11	MYLAR	0.001MF	10%	100V	
C539	1-102-820-00	CERAMIC	330PF	5%	50V	
C541	1-124-902-00	ELECT	0.47MF	20%	50V	

Components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C550	1-101-004-00	CERAMIC	0.01MF		50V
C578	1-124-927-11	ELECT	4.7MF	20%	50V
C593	1-102-820-00	CERAMIC	330PF	5%	50V
C596	1-106-220-00	MYLAR	0.1MF	10%	100V
C597	1-102-951-00	CERAMIC	15PF	10%	50V
C801	1-126-105-11	ELECT	1000MF	20%	35V
C802	1-102-228-00	CERAMIC	470PF	10%	500V
C804	1-123-948-00	ELECT	22MF	20%	250V
C805	⚠ 1-162-114-51	CERAMIC	0.0047MF		2KV
C806	1-106-387-00	MYLAR	0.068MF	10%	200V
C807	1-106-395-00	MYLAR	0.15MF	10%	200V
C810	1-123-024-21	ELECT	33MF		160V
C811	1-136-541-11	FILM	1.5MF	5%	200V
C812	1-123-946-00	ELECT	4.7MF	20%	250V
C813	1-102-212-00	CERAMIC	820PF	10%	500V
C814	⚠ 1-161-731-51	CERAMIC	0.001MF	10%	2KV
C815	1-136-597-11	FILM	0.89MF	5%	200V
C817	1-136-686-11	FILM	0.018MF	3%	1.4KV
C818	1-136-759-11	FILM	0.039MF	5%	630V
C819	⚠ 1-162-116-51	CERAMIC	680PF	10%	2KV
C820	⚠ 1-110-189-81	MYLAR	0.0082MF	10%	400V
C821	⚠ 1-162-116-51	CERAMIC	680PF	10%	2KV
C822	1-102-114-00	CERAMIC	470PF	10%	50V
C823	1-136-559-11	MYLAR	0.0047MF	10%	400V
C824	1-102-212-00	CERAMIC	820PF	10%	500V
C828	1-106-383-00	MYLAR	0.047MF	10%	100V
C829	1-106-379-12	MYLAR	0.033MF	20%	250V
C849	1-102-112-00	CERAMIC	330PF	10%	50V
C850	1-101-821-00	CERAMIC	0.0022MF		500V
C851	1-126-105-11	ELECT	1000MF	20%	35V
C852	1-102-002-00	CERAMIC	680PF	10%	500V
C854	1-124-122-11	ELECT	100MF	20%	50V
C855	1-124-903-11	ELECT	1MF	20%	50V
C860	1-106-399-00	MYLAR	0.22MF	10%	200V
C861	⚠ 1-161-731-51	CERAMIC	0.001MF	10%	2KV
C1501	1-124-925-11	ELECT	2.2MF	20%	50V
C1502	1-124-907-11	ELECT	10MF	20%	50V
C1503	1-108-680-11	MYLAR	0.001MF	10%	100V
C1504	1-124-910-11	ELECT	47MF	20%	50V
C1505	1-106-383-00	MYLAR	0.047MF	10%	100V
C1507	1-108-686-11	MYLAR	0.0033MF	10%	100V
C1508	1-124-907-11	ELECT	10MF	20%	50V
C1509	1-124-903-11	ELECT	1MF	20%	50V
C1511	1-124-907-11	ELECT	10MF	20%	50V
C1512	1-106-367-00	MYLAR	0.01MF	10%	100V
C1513	1-102-963-00	CERAMIC	33PF	5%	50V
C1520	1-102-108-00	CERAMIC	150PF	10%	50V
C1551	1-124-902-00	ELECT	0.47MF	20%	50V
C1552	1-124-122-11	ELECT	100MF	20%	50V
C1553	1-102-228-00	CERAMIC	470PF	10%	500V
C1638	1-106-228-00	MYLAR	0.22MF	10%	100V
C1639	1-101-006-00	CERAMIC	0.047MF		50V
C1640	1-101-006-00	CERAMIC	0.047MF		50V
C1651	1-106-220-00	MYLAR	0.1MF	10%	100V
C1654	1-106-220-00	MYLAR	0.1MF	10%	100V
C1655	1-106-220-00	MYLAR	0.1MF	10%	100V
C1656	1-124-902-00	ELECT	0.47MF	20%	50V
C1657	1-106-383-00	MYLAR	0.047MF	10%	100V
C1707	1-106-363-00	MYLAR	0.0068MF	10%	400V
C1708	1-136-559-11	MYLAR	0.0047MF	10%	400V
C1710	1-106-224-00	MYLAR	0.15MF	10%	100V
C1711	1-124-925-11	ELECT	2.2MF	20%	50V
C1712	1-124-927-11	ELECT	4.7MF	20%	50V
C1713	1-124-910-11	ELECT	47MF	20%	50V
C1714	1-124-911-11	ELECT	220MF	20%	50V
C1715	1-124-910-11	ELECT	47MF	20%	50V
C1716	1-106-228-00	MYLAR	0.22MF	10%	100V
C1717	1-124-120-11	ELECT	220MF	20%	25V
C1718	1-136-165-00	FILM	0.1MF	5%	50V
C1719	1-124-927-11	ELECT	4.7MF	20%	50V
C1720	1-124-927-11	ELECT	4.7MF	20%	50V
C1721	1-124-907-11	ELECT	10MF	20%	50V
C1722	1-124-927-11	ELECT	4.7MF	20%	50V
C1723	1-124-907-11	ELECT	10MF	20%	50V
C1724	1-126-233-11	ELECT	22MF	20%	50V
C1725	1-124-360-00	ELECT	1000MF	20%	16V
C1726	1-124-910-11	ELECT	47MF	20%	50V
C1727	1-124-910-11	ELECT	47MF	20%	50V
C1734	1-124-360-00	ELECT	1000MF	20%	16V
C1735	1-106-379-12	MYLAR	0.033MF	10%	250V
C1736	1-124-903-11	ELECT	1MF	20%	50V
C1740	1-102-244-00	CERAMIC	220PF	10%	500V
C5502	1-124-119-00	ELECT	330MF	20%	16V
C5505	1-124-463-00	ELECT	0.1MF	20%	50V

<FILTER>

REF.NO.	PART NO.	DESCRIPTION
CF501	1-567-888-11	OSCILLATOR, CERAMIC

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
D20	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P
D21	*1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P
D22	*1-564-515-11	PLUG, CONNECTOR 12P
D81	*1-564-506-11	PLUG, CONNECTOR 3P
D82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
D83	*1-568-536-11	PLUG (MINIATURE DY) 6P
D84	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
D85	*1-564-507-11	PLUG, CONNECTOR 4P
D86	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)
D87	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
D801	*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D502	8-719-200-02	DIODE 10E2
D504	8-719-911-55	DIODE U05G
D506	8-719-016-42	DIODE MC932
D508	8-719-911-19	DIODE 1SS119
D511	8-719-911-55	DIODE U05G
D512	8-719-911-55	DIODE U05G
D513	8-719-109-81	DIODE RD4.7ES-B2
D514	8-719-911-19	DIODE 1SS119
D801	8-719-300-33	DIODE RU-3AM
D802	8-719-300-33	DIODE RU-3AM
D803	8-719-901-19	DIODE V11N
D804	8-719-911-55	DIODE U05G
D805	8-719-911-55	DIODE U05G
D806	8-719-945-80	DIODE ERC06-15S
D807	8-719-945-80	DIODE ERC06-15S
D808	8-719-900-26	DIODE ERD29-08J
D809	8-719-911-19	DIODE 1SS119
D850	8-719-979-85	DIODE EGP20G
D1501	8-719-300-33	DIODE RU-3AM
D1502	8-719-911-19	DIODE 1SS119
D1503	8-719-911-19	DIODE 1SS119
D1504	8-719-911-19	DIODE 1SS119

Components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1505	8-719-016-42	DIODE MC932	
D1515	8-719-911-19	DIODE 1SS119	
D1552	8-719-300-33	DIODE RU-3AM	
D1652	8-719-200-02	DIODE 10E2	
D1701	8-719-979-85	DIODE EGP20G	
D1702	8-719-980-78	DIODE ERA83-006	
D1703	8-719-980-78	DIODE ERA83-006	
D1704	8-719-911-19	DIODE 1SS119	
D1705	8-719-911-19	DIODE 1SS119	
D1707	8-719-300-33	DIODE RU-3AM	
D1708	8-719-109-81	DIODE RD4.7ES-B2	
D1709	8-719-109-89	DIODE RD5.6ES-B2	
D1710	8-719-109-89	DIODE RD5.6ES-B2	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC501	8-759-970-73	IC TEA2028B	
IC502	8-759-944-57	IC TDA8170	
IC503	8-749-920-60	IC STR90120	
IC1501	8-759-942-16	IC TEA2031A	
IC1701	8-759-103-93	IC UPC393C	
IC1702	8-759-112-93	IC UPC4570HA-1	
IC1704	8-759-982-13	IC RC7812FA	
	*4-363-147-00	HEAT SINK, H.PIN; IC1704	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L501	1-408-225-00	INDUCTOR 3.3UH	
L801	1-459-111-00	COIL, DRAM CORE (CDI)	
L803	1-459-104-00	COIL, DUST CORE	
L804	1-408-235-00	INDUCTOR 2.2MMH	
L806	1-459-111-00	COIL, DRAM CORE (CDI)	
L807	1-408-938-00	INDUCTOR 22UH	
L809	*1-420-872-00	COIL, AIR CORE	
L811	1-459-104-00	COIL, DUST CORE	
L812	1-408-698-00	INDUCTOR 8.2UH	
L850	1-408-225-00	INDUCTOR 3.3UH	
L1651	1-443-012-00	TRANSFORMER,DYNAMIC CONVERSION	
L1652	1-459-583-11	COIL (WITH CORE)	
L1653	1-408-247-00	INDUCTOR 33MMH	
L1654	1-408-421-00	INDUCTOR 100UH	
L1702	1-410-093-11	INDUCTOR 33MMH	
L1703	1-459-592-11	COIL (WITH CORE) (PMC)	
L1704	1-459-075-00	COIL,DYNAMIC CONVERSION CHOKE	
L1705	1-408-235-00	INDUCTOR 2.2MMH	

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL801	1-519-108-99	LAMP, NEON	

<IC LINK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS1659 ⚠	1-532-727-91	LINK, IC 0.25A	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q501	8-729-173-38	TRANSISTOR 2SA733-K	
Q502	8-729-173-38	TRANSISTOR 2SA733-K	
Q505	8-729-140-96	TRANSISTOR 2SD774-34	
Q506	8-729-140-97	TRANSISTOR 2SB734-34	
Q507	8-729-173-38	TRANSISTOR 2SA733-K	
Q509	8-729-900-80	TRANSISTOR DTC114ES	
Q510	8-729-900-80	TRANSISTOR DTC114ES	
Q591	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q592	8-729-900-80	TRANSISTOR DTC114ES	
Q804	8-729-305-01	TRANSISTOR 2SD1941-07	
	*4-378-214-01	HOLDER, TR; Q804	
Q805	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q806	8-729-122-12	TRANSISTOR 2SA1221-L	
Q807	8-729-141-58	TRANSISTOR 2SC2275A-QP	
Q1551	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1552	8-729-208-72	TRANSISTOR 2SC3298B-Y	
Q1608	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1653	8-729-195-82	TRANSISTOR 2SC2958-L	
Q1701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1703	8-729-208-72	TRANSISTOR 2SC3298B-Y	
Q1704	8-729-140-96	TRANSISTOR 2SD774-34	
Q1705	8-729-140-96	TRANSISTOR 2SD774-34	
Q1706	8-729-173-38	TRANSISTOR 2SA733-K	
Q1707	8-729-809-29	TRANSISTOR 2SC4159-E	
Q1708	8-729-140-97	TRANSISTOR 2SB734-34	
Q1709	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1710	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1711	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1712	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1716	8-729-900-80	TRANSISTOR DTC114ES	
Q1717	8-729-173-38	TRANSISTOR 2SA733-K	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R500	1-247-897-11	CARBON	560K	5%	1/4W	
R501	1-247-708-11	CARBON	470	5%	1/4W	
R502	1-249-409-11	CARBON	220	5%	1/4W	
R503	1-249-410-11	CARBON	270	5%	1/4W	
R504	1-215-427-00	METAL	1.8K	1%	1/4W	
R509	1-249-424-11	CARBON	3.9K	5%	1/4W	
R510	1-249-426-11	CARBON	5.6K	5%	1/4W	
R511	1-247-719-11	CARBON	3.3K	5%	1/4W	
R513A	1-249-432-11	CARBON	18K	5%	1/4W	
R514	1-249-409-11	CARBON	220	5%	1/4W	
R515	1-249-423-11	CARBON	3.3K	5%	1/4W	
R516	1-249-408-11	CARBON	180	5%	1/4W	
R517	1-247-725-11	CARBON	10K	5%	1/4W	
R518	1-249-434-11	CARBON	27K	5%	1/4W	
R519	1-249-429-11	CARBON	10K	5%	1/4W	
R520	1-249-411-11	CARBON	330	5%	1/4W	
R521	1-247-700-11	CARBON	100	5%	1/4W	
R522	1-247-903-00	CARBON	1M	5%	1/4W	
R523	1-249-393-11	CARBON	10	5%	1/4W	
R524	1-249-421-11	CARBON	2.2K	5%	1/4W	
R525	1-249-417-11	CARBON	1K	5%	1/4W	
R526	1-212-889-00	FUSIBLE	220	5%	1/4W	
R527	1-249-460-11	CARBON	15K	5%	1/4W	
R530	1-217-376-00	FUSIBLE	1.2	5%	1/4W	
R531	1-247-881-00	CARBON	120K	5%	1/4W	
R532	1-247-713-11	CARBON	1K	5%	1/4W	
R533	1-249-393-11	CARBON	10	5%	1/4W	
R534	1-246-543-00	CARBON	820K	5%	1/4W	
R535	1-216-455-11	METAL OXIDE	560	5%	2W	F
R536	1-247-725-11	CARBON	10K	5%	1/4W	
R537	1-249-463-11	CARBON	27K	5%	1/4W	
R538	1-249-441-11	CARBON	100K	5%	1/4W	
R539	1-247-883-00	CARBON	150K	5%	1/4W	
R540	1-249-434-11	CARBON	27K	5%	1/4W	
R541	1-249-438-11	CARBON	56K	5%	1/4W	
R542	1-249-425-11	CARBON	4.7K	5%	1/4W	
R543	1-217-376-00	FUSIBLE	1.2	5%	1/4W	
R544	1-247-745-11	CARBON	330	5%	1/2W	

D

REF.NO.	PART NO.	DESCRIPTION				REMARK
R545	1-247-725-11	CARBON	10K	5%	1/4W	
R546	1-249-434-11	CARBON	27K	5%	1/4W	
R547	1-249-423-11	CARBON	3.3K	5%	1/4W	
R548	1-216-349-00	METAL OXIDE	1	5%	1W	F
R549	1-215-890-11	METAL OXIDE	470	5%	2W	F
R550	1-249-440-11	CARBON	82K	5%	1/4W	
R551	1-249-752-11	CARBON	3.9M	5%	1/4W	
R553	1-215-869-11	METAL OXIDE	1K	5%	1W	
R554	1-249-411-11	CARBON	330	5%	1/4W	
R555	1-249-749-00	CARBON	2.2M	5%	1/4W	
R556	1-249-405-11	CARBON	100	5%	1/4W	
R557	1-249-425-11	CARBON	4.7K	5%	1/4W	
R558	1-247-903-00	CARBON	1M	5%	1/4W	
R559	1-249-427-11	CARBON	6.8K	5%	1/4W	
R560	1-249-411-11	CARBON	330	5%	1/4W	
R575	1-249-435-11	CARBON	33K	5%	1/4W	
R585	1-249-422-11	CARBON	2.7K	5%	1/4W	
R595	1-249-417-11	CARBON	1K	5%	1/4W	
R596	1-249-415-11	CARBON	680	5%	1/4W	
R802	1-249-474-11	CARBON	1	5%	1/2W	F
R805	1-249-474-11	CARBON	1	5%	1/2W	F
R806	1-249-467-11	CARBON	68K	5%	1/4W	
R807	1-215-869-11	METAL OXIDE	1K	5%	1W	
R809	1-247-756-11	CARBON	2.2K	5%	1/2W	
R815	1-212-972-00	FUSIBLE	39	5%	1/2W	F
R816	1-215-868-00	METAL OXIDE	680	5%	1W	
R817	1-249-417-11	CARBON	1K	5%	1/4W	
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	9-910-999-33	FUSIBLE	10K	5%	1/4W	
R822	1-217-778-11	FUSIBLE	1K	5%	1W	F
R825	1-216-341-11	METAL OXIDE	0.22	5%	1W	F
R831	1-217-811-11	FUSIBLE	0.47	5%	1/4W	
R832	1-212-865-00	FUSIBLE	22	5%	1/4W	
R833	1-216-379-11	METAL OXIDE	6.8	5%	2W	F
R834	1-249-482-11	CARBON	4.7	5%	1/2W	F
R835	1-215-884-11	METAL OXIDE	47	5%	2W	
R836	1-215-884-11	METAL OXIDE	47	5%	2W	
R837	1-215-913-11	METAL OXIDE	220	5%	3W	F
R837A	1-215-913-11	METAL OXIDE	220	5%	3W	F
R839	1-249-429-11	CARBON	10K	5%	1/4W	
R840	1-249-496-11	CARBON	100K	5%	1/2W	
R841	1-247-713-11	CARBON	1K	5%	1/4W	
R842	1-247-713-11	CARBON	1K	5%	1/4W	
R843	1-216-389-11	METAL OXIDE	1	5%	3W	F
R844	1-215-421-00	METAL	1K	1%	1/4W	
R845	1-214-913-00	METAL	100K	1%	1/2W	
R846	1-249-496-11	CARBON	100K	5%	1/2W	
R847	1-249-429-11	CARBON	10K	5%	1/4W	
R848	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R849	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R1501	1-249-462-11	CARBON	22K	5%	1/4W	
R1502	1-249-434-11	CARBON	27K	5%	1/4W	
R1503	1-247-895-00	CARBON	470K	5%	1/4W	
R1504	1-249-435-11	CARBON	33K	5%	1/4W	
R1505	1-249-433-11	CARBON	22K	5%	1/4W	
R1506	1-247-895-00	CARBON	470K	5%	1/4W	
R1507	1-247-895-00	CARBON	470K	5%	1/4W	
R1508	1-249-438-11	CARBON	56K	5%	1/4W	
R1509	1-249-441-11	CARBON	100K	5%	1/4W	
R1510	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1511	1-249-417-11	CARBON	1K	5%	1/4W	
R1512	1-247-725-11	CARBON	10K	5%	1/4W	
R1513	1-247-883-00	CARBON	150K	5%	1/4W	
R1514	1-249-417-11	CARBON	1K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1515	1-249-439-11	CARBON	68K	5%	1/4W	
R1516	1-249-432-11	CARBON	18K	5%	1/4W	
R1517	1-249-411-11	CARBON	330	5%	1/4W	
R1518	1-249-429-11	CARBON	10K	5%	1/4W	
R1519	1-247-897-11	CARBON	560K	5%	1/4W	
R1520	1-247-897-11	CARBON	560K	5%	1/4W	
R1521	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1523	1-247-903-00	CARBON	1M	5%	1/4W	
R1552	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1553	1-215-917-11	METAL OXIDE	1K	5%	3W	F
R1554	1-249-407-11	CARBON	150	5%	1/4W	
R1602	1-247-883-00	CARBON	150K	5%	1/4W	
R1636	1-249-431-11	CARBON	15K	5%	1/4W	
R1638	1-249-435-11	CARBON	33K	5%	1/4W	
R1643	1-247-721-11	CARBON	4.7K	5%	1/4W	
R1656	1-249-415-11	CARBON	680	5%	1/4W	
R1657	1-249-411-11	CARBON	330	5%	1/4W	
R1658	1-249-411-11	CARBON	330	5%	1/4W	F
R1660	1-215-911-11	METAL OXIDE	100	5%	3W	F
R1720	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1721	1-249-429-11	CARBON	10K	5%	1/4W	
R1722	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1723	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1724	1-249-429-11	CARBON	10K	5%	1/4W	
R1725	1-249-429-11	CARBON	10K	5%	1/4W	
R1726	1-249-441-11	CARBON	100K	5%	1/4W	
R1728	1-215-890-11	METAL OXIDE	470	5%	2W	F
R1729	1-216-449-11	METAL OXIDE	56	5%	2W	
R1730	1-249-441-11	CARBON	100K	5%	1/4W	
R1731	1-215-869-11	METAL OXIDE	1K	5%	1W	
R1733	1-249-414-11	CARBON	560	5%	1/4W	
R1734	1-249-393-11	CARBON	10	5%	1/4W	
R1735	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1736	1-247-895-00	CARBON	470K	5%	1/4W	
R1737	1-249-429-11	CARBON	10K	5%	1/4W	
R1738	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1739	1-249-429-11	CARBON	10K	5%	1/4W	
R1740	1-249-435-11	CARBON	33K	5%	1/4W	
R1741	1-249-429-11	CARBON	10K	5%	1/4W	
R1742	1-249-432-11	CARBON	18K	5%	1/4W	
R1743	1-247-895-00	CARBON	470K	5%	1/4W	
R1744	1-249-429-11	CARBON	10K	5%	1/4W	
R1745	1-249-415-11	CARBON	680	5%	1/4W	
R1746	1-249-424-11	CARBON	3.9K	5%	1/4W	
R1747	1-249-429-11	CARBON	10K	5%	1/4W	
R1748	1-249-424-11	CARBON	3.9K	5%	1/4W	
R1749	1-249-441-11	CARBON	100K	5%	1/4W	
R1750	1-249-409-11	CARBON	220	5%	1/4W	
R1751	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1752	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1753	1-249-417-11	CARBON	1K	5%	1/4W	
R1754	1-249-429-11	CARBON	10K	5%	1/4W	
R1755	1-249-429-11	CARBON	10K	5%	1/4W	
R1756	1-247-713-11	CARBON	1K	5%	1/4W	
R1757	1-249-413-11	CARBON	470	5%	1/4W	
R1758	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1759	1-215-906-11	METAL OXIDE	15	5%	3W	F
R1760	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1761	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1762	1-215-858-00	METAL OXIDE	15	5%	1W	
R1763	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1764	1-249-409-11	CARBON	220	5%	1/4W	
R1774	1-249-421-11	CARBON	2.2K	5%	1/4W	

Components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1775	1-249-429-11	CARBON	10K	5%	1/4W	
R1776	1-247-706-11	CARBON	330	5%	1/4W	
R1778	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1779	1-249-422-11	CARBON	2.7K	5%	1/4W	
R1780	1-249-437-11	CARBON	47K	5%	1/4W	
R1781	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1787	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1792	1-249-435-11	CARBON	33K	5%	1/4W	
R1794	1-249-419-11	CARBON	1.5K	5%	1/4W	
R5113	1-249-467-11	CARBON	68K	5%	1/4W	
R5501	1-247-725-11	CARBON	10K	5%	1/4W	
R5502	1-249-417-11	CARBON	1K	5%	1/4W	
R5503	1-249-429-11	CARBON	10K	5%	1/4W	
R5504	1-249-459-11	CARBON	12K	5%	1/4W	
R5505	1-215-870-11	METAL OXIDE	1.5K	5%	1W	
R5511	1-249-429-11	CARBON	10K	5%	1/4W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION
RV502	1-238-016-11	RES, ADJ, CARBON 10K
RV1501	1-238-023-11	RES, ADJ, CARBON 470K
RV1502	1-238-016-11	RES, ADJ, CARBON 10K
RV1503	1-238-017-11	RES, ADJ, CARBON 22K
RV1504	1-238-012-11	RES, ADJ, CARBON 1K
RV1505	1-238-023-11	RES, ADJ, CARBON 470K
RV1506	1-238-017-11	RES, ADJ, CARBON 22K
RV1507	1-238-009-11	RES, ADJ, CARBON 220
RV1508	1-238-015-11	RES, ADJ, CARBON 4.7K
RV1509	1-238-023-11	RES, ADJ, CARBON 470K
RV1701	1-238-012-11	RES, ADJ, CARBON 1K
RV1702	1-238-016-11	RES, ADJ, CARBON 10K
RV1703	1-238-012-11	RES, ADJ, CARBON 1K
RV1704	1-238-016-11	RES, ADJ, CARBON 10K
RV1705	1-238-017-11	RES, ADJ, CARBON 22K

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION
SG801	1-519-063-99	DISCHARGING GAP

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T801	1-437-090-00	HDT
T802 ⚠	1-439-418-21	TRANSFORMER ASSY, FLYBACK (UX-1610)
T803	1-413-059-00	TRANSFORMER, FERRITE (DFT)
T804	1-459-957-11	TRANSFORMER
T805	1-421-794-11	TRANSFORMER, FERRITE (PMT)

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*1-636-577-11 VM BOARD
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C751	1-102-971-00	CERAMIC	82PF	5%	50V
C752	1-106-349-00	MYLAR	0.0018MF	10%	100V
C754	1-126-101-11	ELECT	100MF	20%	16V
C755	1-102-973-00	CERAMIC	100PF	5%	50V
C756	1-106-367-00	MYLAR	0.01MF	10%	400V
C758	1-106-367-00	MYLAR	0.01MF	10%	400V
C760	1-124-925-11	ELECT	2.2MF	20%	50V
C761	1-106-220-00	MYLAR	0.1MF	10%	100V
C763	1-124-122-11	ELECT	100MF	20%	35V
C764	1-126-176-11	ELECT	220MF	20%	6.3V

REF.NO.	PART NO.	DESCRIPTION				REMARK
C765	1-101-006-00	CERAMIC	0.047MF		50V	
C766	1-124-122-11	ELECT	100MF	20%	35V	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L751	1-408-413-00	INDUCTOR	22UH
L752	1-408-421-00	INDUCTOR	100UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q751	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q752	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q753	8-729-140-96	TRANSISTOR 2SD774-34
Q754	8-729-177-22	TRANSISTOR 2SB772-Q
Q755	8-729-188-23	TRANSISTOR 2SD882-P
Q756	8-729-202-03	TRANSISTOR 2SD1408-Y
Q757	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R711	1-249-423-11	CARBON	3.3K	5%	1/4W	
R751	1-249-409-11	CARBON	220	5%	1/4W	
R752	1-249-409-11	CARBON	220	5%	1/4W	
R753	1-249-418-11	CARBON	1.2K	5%	1/4W	
R754	1-249-416-11	CARBON	820	5%	1/4W	
R755	1-216-431-11	METAL OXIDE	560	5%	1W	
R756	1-249-414-11	CARBON	560	5%	1/4W	
R757	1-249-426-11	CARBON	5.6K	5%	1/4W	
R758	1-249-435-11	CARBON	33K	5%	1/4W	
R759	1-249-405-11	CARBON	100	5%	1/4W	F
R760	1-216-449-11	METAL OXIDE	56	5%	2W	
R764	1-249-409-11	CARBON	220	5%	1/4W	
R765	1-217-637-00	FUSIBLE	1	5%	1/4W	
R766	1-249-426-11	CARBON	5.6K	5%	1/4W	
R767	1-249-417-11	CARBON	1K	5%	1/4W	
R768	1-249-426-11	CARBON	5.6K	5%	1/4W	
R769	1-249-409-11	CARBON	220	5%	1/4W	
R772	1-212-853-00	FUSIBLE	6.8	5%	1/4W	
R773	1-249-396-11	CARBON	18	5%	1/4W	
R776	1-217-637-00	FUSIBLE	1	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
VM78	*1-564-506-11	PLUG, CONNECTOR 3P
VM85	*1-564-507-11	PLUG, CONNECTOR 4P

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A-1645-013-A V BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			
C1	1-126-101-11	ELECT	100MF	20%	16V
C2	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C3	1-124-120-11	ELECT	220MF	20%	16V
C4	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C5	1-124-120-11	ELECT	220MF	20%	16V
C6	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C10	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C11	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C12	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C13	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C14	1-124-927-11	ELECT	4.7MF	20%	50V
C15	1-124-927-11	ELECT	4.7MF	20%	50V

V

Components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C16	1-163-141-00	CERAMIC CHIP 0.001MF		5%	50V
C17	1-163-141-00	CERAMIC CHIP 0.001MF		5%	50V
C18	1-163-141-00	CERAMIC CHIP 0.001MF		5%	50V
C26	1-163-038-00	CERAMIC CHIP 0.1MF			25V
C27	1-163-117-00	CERAMIC CHIP 100PF		5%	50V
C28	1-163-117-00	CERAMIC CHIP 100PF		5%	50V
C29	1-163-117-00	CERAMIC CHIP 100PF		5%	50V
C32	1-163-038-00	CERAMIC CHIP 0.1MF			25V
C33	1-163-038-00	CERAMIC CHIP 0.1MF			25V

<CONNECTOR>

CNV1	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
CNV2	*1-565-393-11	CONNECTOR, BOARD TO BOARD			

<DIODE>

D1	8-719-105-91	DIODE RD5.6M-B2			
D3	8-719-914-44	DIODE DAP202K			
D4	8-719-400-18	DIODE MA152WK			
D5	8-719-914-44	DIODE DAP202K			
D6	8-719-400-18	DIODE MA152WK			
D7	8-719-105-52	DIODE RD3.6M-B2			
D9	8-719-106-17	DIODE RD6.8M-B2			

<IC>

IC1	8-759-039-18	IC SDA20162-B002			
IC2	8-759-510-46	IC SAA5246P/E			
IC3	8-759-510-49	IC FCB61C65L-70P			

<COIL>

L1	1-408-403-00	INDUCTOR	3.3UH		
L2	1-408-407-00	INDUCTOR	6.8UH		
L3	1-408-407-00	INDUCTOR	6.8UH		
L4	1-408-407-00	INDUCTOR	6.8UH		

<IC LINK>

PS1	⚠1-532-679-91	LINK, IC (ICP-N15) 0.6A			

<TRANSISTOR>

Q1	8-729-900-53	TRANSISTOR DTC114EK			
Q2	8-729-920-92	TRANSISTOR 2SD2096-EF			
Q3	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q5	8-729-807-87	TRANSISTOR 2SB1295-UL6			
Q6	8-729-807-87	TRANSISTOR 2SB1295-UL6			
Q7	8-729-807-87	TRANSISTOR 2SB1295-UL6			
Q8	8-729-120-28	TRANSISTOR 2SC1623-L5L6			

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
JR01	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR02	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR03	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR08	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR09	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR11	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR14	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR17	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR18	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR19	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR20	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR21	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR23	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR24	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR25	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR26	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR201	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR204	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR207	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR208	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR211	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR213	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR219	1-216-296-00	METAL GLAZE	0	5%	1/8W
JR220	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR223	1-216-295-00	METAL GLAZE	0	5%	1/10W
R1	1-218-326-11	METAL GLAZE	470	5%	1/2W
R3	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R4	1-216-025-00	METAL GLAZE	100	5%	1/10W
R5	1-216-047-00	METAL GLAZE	820	5%	1/10W
R6	1-216-001-00	METAL GLAZE	10	5%	1/10W
R7	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R8	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R9	1-216-308-00	METAL GLAZE	4.7	5%	1/10W
R02	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R10	1-218-325-11	METAL GLAZE	120	5%	1/4W
R11	1-218-325-11	METAL GLAZE	120	5%	1/4W
R12	1-218-325-11	METAL GLAZE	120	5%	1/4W
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W
R14	1-216-001-00	METAL GLAZE	10	5%	1/10W
R15	1-216-013-00	METAL GLAZE	33	5%	1/10W
R16	1-216-013-00	METAL GLAZE	33	5%	1/10W
R17	1-216-013-00	METAL GLAZE	33	5%	1/10W
R18	1-216-025-00	METAL GLAZE	100	5%	1/10W
R19	1-216-025-00	METAL GLAZE	100	5%	1/10W
R20	1-216-041-00	METAL GLAZE	470	5%	1/10W
R21	1-216-041-00	METAL GLAZE	470	5%	1/10W
R22	1-216-168-00	METAL GLAZE	56	5%	1/8W
R23	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R24	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R25	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R26	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R27	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W
R28	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R34	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R35	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R41	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R42	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R44	1-216-295-00	METAL GLAZE	0	5%	1/10W
R46	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R47	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R49	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R50	1-216-296-00	METAL GLAZE	0	5%	1/8W

<VARIABLE RESISTOR>

RV1	1-238-012-11	RES, ADJ, CARBON 1K			

<CRYSTAL>

X1	1-579-266-21	CRYSTAL VIBRATOR			
X2	1-577-364-11	VIBRATOR, CERAMIC			

REF.NO.	PART NO.	DESCRIPTION			REMARK

****

*1-636-576-11 H2 BOARD
****

	*4-201-076-01	HOLDER, LED			
	*4-374-987-01	GUIDE, LIGHT			
	*4-381-686-01	BRACKET (B), LIGHT GUIDE			

<DIODE>

D951	8-719-948-31	DIODE LD-201VR			
D952	8-719-948-31	DIODE LD-201VR			
D954	8-719-948-31	DIODE LD-201VR			

<CONNECTOR>

H2-92	*1-564-510-11	PLUG, CONNECTOR 7P			

<IC>

IC951	8-741-101-75	IC SBX1610-11			

<RESISTOR>

R951	1-249-413-11	CARBON	470	5%	1/4W

****

*1-636-575-11 H1 BOARD
****

	1-580-322-11	JACK, PIN (WITH SW)			

<CAPACITOR>

C901	1-101-004-00	CERAMIC	0.01MF		50V
C902	1-101-004-00	CERAMIC	0.01MF		50V
C903	1-102-114-00	CERAMIC	470PF	10%	50V
C904	1-102-114-00	CERAMIC	470PF	10%	50V

<CONNECTOR>

H1-9	*1-564-507-11	PLUG, CONNECTOR 4P			
H1-53	*1-564-595-11	PLUG, CONNECTOR 14P			
H1-91	*1-564-507-11	PLUG, CONNECTOR 4P			
H1-96	1-562-837-11	JACK			
H1-902	1-565-639-11	JACK, PIN 1P			
H1-903	1-565-641-11	JACK, PIN 1P			
H1-905	1-565-666-12	TERMINAL, S 4P			

<RESISTOR>

R901	1-249-405-11	CARBON	100	5%	1/4W
R902	1-249-405-11	CARBON	100	5%	1/4W

<SWITCH>

S901	1-571-532-21	SWITCH, TACTIL			
S902	1-571-532-21	SWITCH, TACTIL			
S903	1-571-532-21	SWITCH, TACTIL			

****

*A-1649-002-A K BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION			REMARK
	4-200-001-01	HOLDER, IC			
	4-201-023-01	SPACER, INSULATING			
	*4-380-699-01	CASE (UPPER LID), SHIELD, AI			
	4-812-134-00	RIVET NYLON, 3.5			

<CAPACITOR>

C1002	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1004	1-124-120-11	ELECT	220MF	20%	16V
C1005	1-124-903-11	ELECT	1MF	20%	50V
C1010	1-124-120-11	ELECT	220MF	20%	16V
C1011	1-101-004-00	CERAMIC	0.01MF		50V
C1012	1-101-004-00	CERAMIC	0.01MF		50V
C1013	1-106-220-00	MYLAR	0.1MF	10%	100V
C1014	1-106-220-00	MYLAR	0.1MF	10%	100V
C1015	1-124-902-00	ELECT	0.47MF	20%	50V
C1016	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1017	1-106-220-00	MYLAR	0.1MF	10%	100V
C1018	1-102-980-00	CERAMIC	270PF	5%	50V
C1019	1-106-383-00	MYLAR	0.047MF	10%	100V
C1020	1-124-917-11	ELECT	33MF	20%	50V
C1021	1-102-973-00	CERAMIC	100PF	5%	50V
C1022	1-101-004-00	CERAMIC	0.01MF		50V
C1023	1-102-973-00	CERAMIC	100PF	5%	50V
C1024	1-102-973-00	CERAMIC	100PF	5%	50V
C1025	1-102-973-00	CERAMIC	100PF	5%	50V
C1026	1-124-917-11	ELECT	33MF	20%	50V
C1027	1-124-907-11	ELECT	10MF	20%	50V
C1098	1-124-360-00	ELECT	1000MF	20%	16V
C1099	1-124-360-00	ELECT	1000MF	20%	16V
C1250	1-124-907-11	ELECT	10MF	20%	50V
C1251	1-124-925-11	ELECT	2.2MF	20%	50V
C1252	1-124-122-11	ELECT	100MF	20%	50V
C1253	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1254	1-106-220-00	MYLAR	0.1MF	10%	100V
C1255	1-124-922-11	ELECT	1000MF	20%	50V
C1256	1-124-925-11	ELECT	2.2MF	20%	50V
C1257	1-124-607-11	ELECT	2200MF	20%	50V
C1260	1-124-907-11	ELECT	10MF	20%	50V
C1261	1-124-925-11	ELECT	2.2MF	20%	50V
C1262	1-124-122-11	ELECT	100MF	20%	50V
C1263	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1264	1-106-220-00	MYLAR	0.1MF	10%	100V
C1266	1-124-925-11	ELECT	2.2MF	20%	50V
C1267	1-124-607-11	ELECT	2200MF	20%	50V
C1901	1-102-973-00	CERAMIC	100PF	5%	50V
C1902	1-102-973-00	CERAMIC	100PF	5%	50V
C1903	1-102-973-00	CERAMIC	100PF	5%	50V
C1904	1-102-973-00	CERAMIC	100PF	5%	50V
C1905	1-102-973-00	CERAMIC	100PF	5%	50V
C1907	1-102-973-00	CERAMIC	100PF	5%	50V
C1908	1-102-973-00	CERAMIC	100PF	5%	50V
C1909	1-124-927-11	ELECT	4.7MF	20%	50V
C1910	1-101-006-00	CERAMIC	0.047MF		50V
C1922	1-126-235-11	ELECT	100MF	20%	16V

<FILTER>

CF1001	1-577-364-11	VIBRATOR, CERAMIC			

<NETWORK>

CP1001	1-236-841-11	NETWORK, C			
CP1002	1-236-967-11	NETWORK, RES, THICK FILM			

K

Components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1001	8-719-911-19	DIODE 1SS119	
D1002	8-719-109-98	DIODE RD6.8ES-B3	
D1003	8-719-911-19	DIODE 1SS119	
D1005	8-719-109-89	DIODE RD5.6ES-B2	
D1006	8-719-109-71	DIODE RD3.9ES-B1	
D1007	1-124-925-11	ELECT 2.2MF 20% 50V	
D1008	8-719-421-75	DIODE MA723-(TA)	
D1009	8-719-109-89	DIODE RD5.6ES-B2	
D1010	8-719-109-93	DIODE RD6.2ES-B2	
D1011	8-719-109-93	DIODE RD6.2ES-B2	
D1012	8-719-911-19	DIODE 1SS119	
D1013	8-719-911-19	DIODE 1SS119	
D1024	8-719-110-76	DIODE RD33ES-B1	
D1025	8-719-110-56	DIODE RD20ES-B3	
D1271	8-719-110-31	DIODE RD12ES-B2	
D1272	8-719-911-19	DIODE 1SS119	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1001	8-759-045-86	IC SDA20560-A011	
IC1003	8-759-945-58	IC RC4558P	
IC1004	8-759-208-06	IC TC4051BPHB	
IC1005	8-759-748-56	IC SDA2546	
IC1006	8-759-208-06	IC TC4051BPHB	
IC1007	8-759-140-53	IC UPD4053BC	
IC1099	8-759-502-23	IC L78S05CV	
IC1251	8-759-988-94	IC TDA2050	
IC1261	8-759-988-94	IC TDA2050	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
K2	*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P	
K3	*1-564-507-11	PLUG, CONNECTOR 4P	
K11	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
K12	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
K18	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
K20	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
K21	*1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P	
K22	*1-564-515-11	PLUG, CONNECTOR 12P	
K31	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
K32	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
K33	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
K41	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
K42	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
K51	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
K52	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
K54	*1-564-507-11	PLUG, CONNECTOR 4P	
K63	*1-564-509-11	PLUG, CONNECTOR 6P	
K89	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
K91	*1-564-507-11	PLUG, CONNECTOR 4P	
K92	*1-564-510-11	PLUG, CONNECTOR 7P	
K96	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
K97	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
K99	*1-564-508-11	PLUG, CONNECTOR 5P	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L1099	1-410-397-21	FERRITE BEAD INDUCTOR	

<IC LINK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS1099⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1001	8-729-900-89	TRANSISTOR DTC144ES	
Q1002	8-729-900-89	TRANSISTOR DTC144ES	
Q1003	8-729-173-38	TRANSISTOR 2SA733-K	
Q1004	8-729-173-38	TRANSISTOR 2SA733-K	
Q1005	8-729-900-89	TRANSISTOR DTC144ES	
Q1006	8-729-900-89	TRANSISTOR DTC144ES	
Q1007	8-729-900-89	TRANSISTOR DTC144ES	
Q1008	8-729-900-89	TRANSISTOR DTC144ES	
Q1009	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1010	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1060	8-729-900-89	TRANSISTOR DTC144ES	
Q1061	8-729-900-89	TRANSISTOR DTC144ES	
Q1251	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1261	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1271	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1901	8-729-119-78	TRANSISTOR 2SC2785-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1001	1-249-413-11	CARBON 470 5% 1/4W	
R1002	1-249-413-11	CARBON 470 5% 1/4W	
R1004	1-249-417-11	CARBON 1K 5% 1/4W	
R1005	1-249-417-11	CARBON 1K 5% 1/4W	
R1006	1-249-429-11	CARBON 10K 5% 1/4W	
R1007	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1008	1-249-429-11	CARBON 10K 5% 1/4W	
R1009	1-249-429-11	CARBON 10K 5% 1/4W	
R1010	1-249-413-11	CARBON 470 5% 1/4W	
R1011	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1012	1-249-429-11	CARBON 10K 5% 1/4W	
R1013	1-249-429-11	CARBON 10K 5% 1/4W	
R1014	1-249-435-11	CARBON 33K 5% 1/4W	
R1015	1-249-423-11	CARBON 3.3K 5% 1/4W	
R1016	1-249-435-11	CARBON 33K 5% 1/4W	
R1017	1-249-436-11	CARBON 39K 5% 1/4W	
R1018	1-249-440-11	CARBON 82K 5% 1/4W	
R1019	1-249-405-11	CARBON 100 5% 1/4W	
R1020	1-249-405-11	CARBON 100 5% 1/4W	
R1021	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1022	1-249-429-11	CARBON 10K 5% 1/4W	
R1023	1-249-433-11	CARBON 22K 5% 1/4W	
R1024	1-215-924-00	METAL OXIDE 15K 5% 3W	F
R1025	1-249-405-11	CARBON 100 5% 1/4W	
R1026	1-249-417-11	CARBON 1K 5% 1/4W	
R1027	1-249-405-11	CARBON 100 5% 1/4W	
R1028	1-249-405-11	CARBON 100 5% 1/4W	
R1029	1-249-429-11	CARBON 10K 5% 1/4W	
R1030	1-249-429-11	CARBON 10K 5% 1/4W	
R1031	1-249-433-11	CARBON 22K 5% 1/4W	
R1032	1-249-429-11	CARBON 10K 5% 1/4W	
R1033	1-249-429-11	CARBON 10K 5% 1/4W	
R1034	1-249-431-11	CARBON 15K 5% 1/4W	
R1035	1-249-433-11	CARBON 22K 5% 1/4W	
R1036	1-249-434-11	CARBON 27K 5% 1/4W	
R1037	1-249-427-11	CARBON 6.8K 5% 1/4W	
R1038	1-249-427-11	CARBON 6.8K 5% 1/4W	
R1039	1-249-433-11	CARBON 22K 5% 1/4W	
R1040	1-249-431-11	CARBON 15K 5% 1/4W	
R1041	1-249-429-11	CARBON 10K 5% 1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1042	1-249-417-11	CARBON	1K	5%	1/4W	
R1043	1-249-413-11	CARBON	470	5%	1/4W	
R1044	1-249-441-11	CARBON	100K	5%	1/4W	
R1045	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1046	1-249-440-11	CARBON	82K	5%	1/4W	
R1047	1-249-429-11	CARBON	10K	5%	1/4W	
R1048	1-249-429-11	CARBON	10K	5%	1/4W	
R1049	1-249-429-11	CARBON	10K	5%	1/4W	
R1050	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1051	1-249-413-11	CARBON	470	5%	1/4W	
R1052	1-249-417-11	CARBON	1K	5%	1/4W	
R1053	1-249-417-11	CARBON	1K	5%	1/4W	
R1054	1-249-417-11	CARBON	1K	5%	1/4W	
R1055	1-249-411-11	CARBON	330	5%	1/4W	
R1056	1-249-417-11	CARBON	1K	5%	1/4W	
R1057	1-249-417-11	CARBON	1K	5%	1/4W	
R1058	1-249-424-11	CARBON	3.9K	5%	1/4W	
R1059	1-249-417-11	CARBON	1K	5%	1/4W	
R1060	1-249-417-11	CARBON	1K	5%	1/4W	
R1061	1-249-417-11	CARBON	1K	5%	1/4W	
R1062	1-249-429-11	CARBON	10K	5%	1/4W	
R1063	1-249-417-11	CARBON	1K	5%	1/4W	
R1064	1-249-413-11	CARBON	470	5%	1/4W	
R1065	1-249-417-11	CARBON	1K	5%	1/4W	
R1066	1-249-413-11	CARBON	470	5%	1/4W	
R1067	1-249-413-11	CARBON	470	5%	1/4W	
R1068	1-249-405-11	CARBON	100	5%	1/4W	
R1069	1-249-405-11	CARBON	100	5%	1/4W	
R1070	1-249-417-11	CARBON	1K	5%	1/4W	
R1071	1-249-417-11	CARBON	1K	5%	1/4W	
R1072	1-249-417-11	CARBON	1K	5%	1/4W	
R1073	1-249-417-11	CARBON	1K	5%	1/4W	
R1074	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1075	1-249-409-11	CARBON	220	5%	1/4W	
R1076	1-249-429-11	CARBON	10K	5%	1/4W	
R1077	1-249-417-11	CARBON	1K	5%	1/4W	
R1081	1-249-417-11	CARBON	1K	5%	1/4W	
R1082	1-249-429-11	CARBON	10K	5%	1/4W	
R1083	1-249-429-11	CARBON	10K	5%	1/4W	
R1084	1-249-429-11	CARBON	10K	5%	1/4W	
R1085	1-249-429-11	CARBON	10K	5%	1/4W	
R1086	1-249-429-11	CARBON	10K	5%	1/4W	
R1087	1-249-429-11	CARBON	10K	5%	1/4W	
R1093	1-249-429-11	CARBON	10K	5%	1/4W	
R1094	1-249-429-11	CARBON	10K	5%	1/4W	
R1098	1-249-417-11	CARBON	1K	5%	1/4W	
R1099	1-249-417-11	CARBON	1K	5%	1/4W	
R1250	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R1251	1-249-441-11	CARBON	100K	5%	1/4W	
R1252	1-249-412-11	CARBON	390	5%	1/4W	
R1253	1-249-429-11	CARBON	10K	5%	1/4W	
R1254	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R1255	1-249-429-11	CARBON	10K	5%	1/4W	
R1257	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1258	1-215-869-11	METAL OXIDE	1K	5%	1W	
R1259	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1261	1-249-441-11	CARBON	100K	5%	1/4W	
R1262	1-249-412-11	CARBON	390	5%	1/4W	
R1263	1-249-429-11	CARBON	10K	5%	1/4W	
R1264	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R1265	1-249-429-11	CARBON	10K	5%	1/4W	
R1266	1-249-441-11	CARBON	100K	5%	1/4W	
R1267	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1268	1-215-869-11	METAL OXIDE	1K	5%	1W	
R1269	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1271	1-249-415-11	CARBON	680	5%	1/4W	
R1272	1-249-429-11	CARBON	10K	5%	1/4W	
R1273	1-249-429-11	CARBON	10K	5%	1/4W	
R1274	1-249-441-11	CARBON	100K	5%	1/4W	
R1275	1-249-439-11	CARBON	68K	5%	1/4W	
R1276	1-249-435-11	CARBON	33K	5%	1/4W	
R1284	1-249-441-11	CARBON	100K	5%	1/4W	
R1285	1-249-439-11	CARBON	68K	5%	1/4W	
R1286	1-249-435-11	CARBON	33K	5%	1/4W	
R1901	1-249-429-11	CARBON	10K	5%	1/4W	
R1902	1-249-429-11	CARBON	10K	5%	1/4W	
R1904	1-249-429-11	CARBON	10K	5%	1/4W	
R1907	1-249-429-11	CARBON	10K	5%	1/4W	
R1908	1-249-429-11	CARBON	10K	5%	1/4W	
R1909	1-249-429-11	CARBON	10K	5%	1/4W	
R1910	1-249-429-11	CARBON	10K	5%	1/4W	
R1911	1-249-429-11	CARBON	10K	5%	1/4W	
R1912	1-249-429-11	CARBON	10K	5%	1/4W	
R1913	1-249-417-11	CARBON	1K	5%	1/4W	
R1921	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1922	1-249-427-11	CARBON	6.8K	5%	1/4W	

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A-1651-027-A J BOARD, COMPLETE
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PART NO.	DESCRIPTION
1-536-996-21	TERMINAL BOARD, INPUT/OUTPUT
1-561-534-41	SOCKET 21P
*1-564-593-11	PLUG, CONNECTOR 14P
*1-566-641-11	CONNECTOR, HINGE (TAB) 18P

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C201	1-126-103-11	ELECT	470MF	20%	16V	
C205	1-124-927-11	ELECT	4.7MF	20%	50V	
C207	1-124-927-11	ELECT	4.7MF	20%	50V	
C209	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V	
C210	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V	
C213	1-126-233-11	ELECT	22MF	20%	50V	
C214	1-106-363-00	MYLAR	0.0068MF	10%	400V	
C217	1-106-363-00	MYLAR	0.0068MF	10%	400V	
C218	1-106-375-12	MYLAR	0.022MF	10%	250V	
C219	1-106-375-12	MYLAR	0.022MF	10%	250V	
C220	1-108-686-11	MYLAR	0.0033MF	10%	100V	
C221	1-108-686-11	MYLAR	0.0033MF	10%	100V	
C222	1-106-385-00	MYLAR	0.056MF	10%	100V	
C223	1-106-385-00	MYLAR	0.056MF	10%	100V	
C224	1-106-367-00	MYLAR	0.01MF	10%	400V	
C225	1-136-173-00	FILM	0.47MF	5%	50V	
C226	1-136-173-00	FILM	0.47MF	5%	50V	
C227	1-106-375-12	MYLAR	0.022MF	10%	250V	
C228	1-106-379-12	MYLAR	0.033MF	10%	250V	
C229	1-106-371-00	MYLAR	0.015MF	10%	400V	
C230	1-106-371-00	MYLAR	0.015MF	10%	400V	
C231	1-124-902-00	ELECT	0.47MF	20%	50V	
C232	1-124-907-11	ELECT	10MF	20%	50V	
C233	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C234	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C235	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C236	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	
C237	1-124-902-00	ELECT	0.47MF	20%	50V	
C238	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C239	1-126-103-11	ELECT	470MF	20%	16V	

J

REF.NO.	PART NO.	DESCRIPTION				REMARK
C243	1-106-228-00	MYLAR	0.22MF	10%	100V	
C244	1-106-228-00	MYLAR	0.22MF	10%	100V	
C265	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	
C266	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	
C267	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	
C268	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V	
C273	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C280	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C281	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C290	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C291	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	
C292	1-124-925-11	ELECT	2.2MF	20%	50V	
C293	1-124-925-11	ELECT	2.2MF	20%	50V	
C1401	1-124-120-11	ELECT	220MF	20%	16V	
C1402	1-126-103-11	ELECT	470MF	20%	16V	
C1403	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1404	1-106-228-00	MYLAR	0.22MF	10%	100V	
C1405	1-163-029-91	CERAMIC CHIP	0.0047MF		50V	
C1406	1-106-228-00	MYLAR	0.22MF	10%	100V	
C1407	1-124-910-11	ELECT	47MF	20%	50V	
C1408	1-124-122-11	ELECT	100MF	20%	50V	
C1409	1-126-233-11	ELECT	22MF	20%	50V	
C1410	1-124-907-11	ELECT	10MF	20%	50V	
C1411	1-124-907-11	ELECT	10MF	20%	50V	
C1412	1-124-910-11	ELECT	47MF	20%	50V	
C1413	1-124-910-11	ELECT	47MF	20%	50V	
C1414	1-124-907-11	ELECT	10MF	20%	50V	
C1415	1-106-228-00	MYLAR	0.22MF	10%	100V	
C1416	1-106-228-00	MYLAR	0.22MF	10%	100V	
C1417	1-124-120-11	ELECT	220MF	20%	16V	
C1418	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1419	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1425	1-124-902-00	ELECT	0.47MF	20%	50V	
C1426	1-124-902-00	ELECT	0.47MF	20%	50V	
C1427	1-163-029-91	CERAMIC CHIP	0.0047MF		50V	
C1428	1-163-029-91	CERAMIC CHIP	0.0047MF		50V	
C1429	1-163-029-91	CERAMIC CHIP	0.0047MF		50V	
C1430	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	
C1431	1-126-529-11	ELECT	0.47MF	20%	50V	
C1432	1-124-902-00	ELECT	0.47MF	20%	50V	
C1433	1-124-122-11	ELECT	100MF	20%	50V	
C1434	1-124-120-11	ELECT	220MF	20%	16V	
C1435	1-124-120-11	ELECT	220MF	20%	16V	
C1439	1-106-367-00	MYLAR	0.01MF	10%	400V	
C1444	1-124-910-11	ELECT	47MF	20%	50V	
C1801	1-106-367-00	MYLAR	0.01MF	10%	400V	
C1802	1-124-910-11	ELECT	47MF	20%	50V	
C1803	1-124-910-11	ELECT	47MF	20%	50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D205	8-719-110-04	DIODE RD7.5ES-B3	
D206	8-719-110-04	DIODE RD7.5ES-B3	
D210	8-719-110-04	DIODE RD7.5ES-B3	
D212	8-719-110-04	DIODE RD7.5ES-B3	
D250	8-719-110-04	DIODE RD7.5ES-B3	
D251	8-719-110-04	DIODE RD7.5ES-B3	
D1401	8-719-110-04	DIODE RD7.5ES-B3	
D1403	8-719-110-04	DIODE RD7.5ES-B3	
D1404	8-719-110-04	DIODE RD7.5ES-B3	
D1405	8-719-110-04	DIODE RD7.5ES-B3	
D1406	8-719-110-04	DIODE RD7.5ES-B3	
D1407	8-719-110-18	DIODE RD10ES-B3	
D1408	8-719-110-14	DIODE RD9.1ES-B3	
D1409	8-719-110-14	DIODE RD9.1ES-B3	
D1410	8-719-110-14	DIODE RD9.1ES-B3	
D1415	8-719-110-04	DIODE RD7.5ES-B3	
D1418	8-719-110-04	DIODE RD7.5ES-B3	
D1419	8-719-110-04	DIODE RD7.5ES-B3	
D1420	8-719-110-04	DIODE RD7.5ES-B3	
D1426	8-719-110-04	DIODE RD7.5ES-B3	
D1801	8-719-110-04	DIODE RD7.5ES-B3	
D1802	8-719-110-04	DIODE RD7.5ES-B3	
D1803	8-719-110-04	DIODE RD7.5ES-B3	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC201	8-759-013-17	IC TDA6200	
IC1401	8-752-053-17	IC CXA1114P	
IC1402	8-759-946-32	IC TEA2014A	
IC1403	8-759-140-53	IC UPD4053BC	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
J22	*1-560-721-21	PLUG, CONNECTOR 2P	
J54	*1-564-506-11	PLUG, CONNECTOR 3P	
J55	*1-564-506-11	PLUG, CONNECTOR 3P	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L201	1-408-427-00	INDUCTOR	330UH	
L280	1-412-240-11	INDUCTOR, WIDE BAND		
L281	1-412-240-11	INDUCTOR, WIDE BAND		
L282	1-412-240-11	INDUCTOR, WIDE BAND		
L283	1-412-240-11	INDUCTOR, WIDE BAND		

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q201	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q202	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1401	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1402	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1403	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q1404	8-729-216-22	TRANSISTOR 2SA1162-G	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JW92	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW93	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R202	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R203	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R204	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R205	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R206	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R207	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R208	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R209	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R210	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R211	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R212	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R213	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R214	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R215	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R216	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R217	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R218	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R219	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R220	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	

J G

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R221	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R222	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R225	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R226	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R227	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R228	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R229	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R233	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R234	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R235	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R236	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R237	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R238	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R239	1-247-688-11	CARBON	10	5%	1/4W	F
R240	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R243	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R247	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R270	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R271	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R272	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R273	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R274	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R275	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R276	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R277	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R290	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R291	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R292	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R293	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R294	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R295	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1401	1-216-172-00	METAL GLAZE	82	5%	1/8W	
R1402	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1403	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1404	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1405	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1407	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1408	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1409	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1410	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1411	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1412	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1413	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1414	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1415	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1416	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1417	1-216-172-00	METAL GLAZE	82	5%	1/8W	
R1418	1-247-738-11	CARBON	82	5%	1/2W	F
R1420	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1421	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1422	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1423	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1424	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1425	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1426	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1427	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1428	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1429	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1430	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1431	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1432	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1433	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1434	1-247-688-11	CARBON	10	5%	1/4W	F
R1435	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1436	1-216-172-00	METAL GLAZE	82	5%	1/8W	
R1437	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1439	1-216-172-00	METAL GLAZE	82	5%	1/8W	
R1440	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1441	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1442	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1443	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1444	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1445	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1446	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1447	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1448	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1452	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1453	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1454	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1455	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1456	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1457	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1458	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1459	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1460	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1461	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1462	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1463	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1464	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1467	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1468	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1469	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1470	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1482	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1483	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1484	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1485	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1486	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1487	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1488	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1489	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1801	1-216-172-00	METAL GLAZE	82	5%	1/8W	
R1802	1-216-172-00	METAL GLAZE	82	5%	1/8W	
R1803	1-216-172-00	METAL GLAZE	82	5%	1/8W	
R1811	1-216-033-00	METAL GLAZE	220	5%	1/10W	

****

⚠.1-413-698-11 G BOARD (ZD-114)
****

<CAPACITOR>

C601	1-136-721-21	FILM	1.5MF	10%	400V
C602	1-136-759-11	FILM	0.039MF	5%	630V
C603	1-136-759-11	FILM	0.039MF	5%	630V
C604	1-130-325-11	FILM	0.15MF	5%	100V
C605	1-130-325-11	FILM	0.15MF	5%	100V
C606	1-164-143-11	CERAMIC	1000PF	10%	1KV
C607	1-164-143-11	CERAMIC	1000PF	10%	1KV
C608	1-164-143-11	CERAMIC	1000PF	10%	1KV
C609	1-164-144-11	CERAMIC	1500PF	10%	1KV
C610	1-164-143-11	CERAMIC	1000PF	10%	1KV
C611	1-102-038-00	CERAMIC	1000PF		500V
C612	1-108-843-11	MYLAR	0.033MF	10%	50V
C613	1-124-477-11	ELECT	47MF	20%	16V
C614	1-126-176-11	ELECT	220MF	20%	6.3V
C615	1-123-380-00	ELECT	1MF	20%	50V

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.

G

REF.NO.	PART NO.	DESCRIPTION			REMARK
C616	1-124-557-11	ELECT	1000MF	20%	25V
C618	1-124-439-11	ELECT	2700MF	20%	25V
C619	1-124-557-11	ELECT	1000MF	20%	25V
C620	1-124-568-00	ELECT	4700MF	20%	10V
C621	1-124-347-00	ELECT	100MF	20%	160V
C622	1-130-495-00	MYLAR	0.1MF	10%	50V
C623	1-162-115-00	CERAMIC	330PF	10%	2KV
C624	1-124-471-00	ELECT	1000MF	20%	6.3V
C625	1-164-144-11	CERAMIC	1500PF	10%	1KV

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D601	8-719-500-69	DIODE S3V10SS
D602	8-719-500-69	DIODE S3V10SS
D603	8-719-500-26	DIODE D5KD20H
D605	8-719-510-13	DIODE D10SC4MR
D606	8-719-510-12	DIODE D10SC4M
D607	8-719-300-33	DIODE RU-3AM
D608	8-719-300-33	DIODE RU-3AM
D609	8-719-500-67	DIODE D5KC40H
D610	8-719-911-19	DIODE 1SS119
D611	8-719-911-19	DIODE 1SS119
D612	8-719-911-19	DIODE 1SS119
D613	8-719-911-19	DIODE 1SS119
D615	8-719-801-95	DIODE 2GWJ42
D616	8-719-911-55	DIODE U05G
D617	8-719-110-50	DIODE RD18ES-B3

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
G1	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
G2	*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P
G3	*1-564-507-11	PLUG, CONNECTOR 4P
G4	*1-564-506-11	PLUG, CONNECTOR 3P

<MODULE>

REF.NO.	PART NO.	DESCRIPTION
IC601	1-236-237-11	POWER MODULE (DM-38)

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L603	1-408-698-00	INDUCTOR	8.20UH
L604	1-421-329-00	COIL, CHOKE	
L605	1-410-397-21	FERRITE BEAD INDUCTOR	1.10UH
L606	1-459-787-11	CHOKE COIL 3.3UH	
L607	1-410-397-21	FERRITE BEAD INDUCTOR	1.10UH
L609	1-410-396-41	FERRITE BEAD INDUCTOR	0.45UH
L610	1-410-396-41	FERRITE BEAD INDUCTOR	0.45UH
L613	1-410-397-21	FERRITE BEAD INDUCTOR	1.10UH
L615	1-459-155-00	COIL (WITH CORE) 45UH	
L616	1-421-329-00	COIL, CHOKE	
L617	1-421-329-00	COIL, CHOKE	
L618	1-459-155-00	COIL (WITH CORE) 45UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q601	8-729-931-23	TRANSISTOR 2SC4056S
Q602	8-729-931-23	TRANSISTOR 2SC4056S
Q603	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q604	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R601	1-215-904-11	METAL OXIDE	100K	5%	2W	F
R602	1-215-904-11	METAL OXIDE	100K	5%	2W	F
R605	1-207-451-00	WIREWOUND	0.1	10%	1/2W	
R606	1-207-451-00	WIREWOUND	0.1	10%	1/2W	
R607	1-216-370-11	METAL OXIDE	1.2	5%	2W	F
R608	1-216-370-11	METAL OXIDE	1.2	5%	2W	F
R609	1-249-405-11	CARBON	100	5%	1/4W	F
R610	1-249-405-11	CARBON	100	5%	1/4W	F
R611	1-249-417-11	CARBON	1K	5%	1/4W	
R612	1-249-382-11	CARBON	1.2	5%	1/4W	F
R613	1-249-398-11	CARBON	27	5%	1/4W	F
R614	1-249-405-11	CARBON	100	5%	1/4W	F
R615	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R616	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R617	1-216-343-00	WIREWOUND	0.33	10%	1/2W	
R618	1-207-451-00	WIREWOUND	0.1	10%	1/2W	
R619	1-249-417-11	CARBON	1K	5%	1/4W	
R620	1-249-407-11	CARBON	150	5%	1/4W	F
R621	1-249-405-11	CARBON	100	5%	1/4W	F
R622	1-207-451-00	WIREWOUND	0.1	10%	1/2W	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION
T601	1-424-023-11	TRANSFORMER, LINE FILTER
T602	⚠.1-424-147-11	TRANSFORMER, POWER REGULATION
T603	⚠.1-450-273-11	TRANSFORMER, POWER INSULATED

****

MISCELLANEOUS
****

REF.NO.	PART NO.	DESCRIPTION
	⚠.1-237-614-13	RESISTOR ASSY, HIGH-VOLTAGE
	⚠.1-426-433-21	COIL, DEMAGNETIZATION
	⚠.1-451-315-11	DEFLECTION YOKE (Y34FXA)
	1-452-032-00	MAGNET, DISK; 10MM ϕ
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ
	⚠.1-452-468-11	NECK ASSY, PICTURE TUBE (NA321)
	1-543-619-11	CORE, RING
	1-544-475-11	SPEAKER
	⚠.1-563-204-13	SOCKET, ANTENNA (PAL/SECAM)
	⚠.1-575-487-11	CORD,POWER (WITH NOISE FILTER)
	*1-690-184-11	CABLE, PIN
V901	⚠.8-733-723-05	PICTURE TUBE (A80JYV50X)

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ACCESSORIES AND PACKING MATERIALS
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PART NO.	DESCRIPTION	REMARK
*X-4200-082-1	CUSHION ASSY, FRONT	
*4-200-789-01	CUSHION (UPPER) (ASSY)	
*4-200-790-01	CUSHION (LOWER) (ASSY)	
*4-200-791-01	INDIVIDUAL CARTON	
*4-200-792-01	TRAY	
*4-200-794-01	PALLET	
4-200-808-11	MANUAL, INSTRUCTION (GERMAN/ENGLISH/ DUTCH/FRENCH/ITALIAN/PORTUGUESE)	
*4-388-954-01	BAG, PROTECTION	
*4-396-077-01	JOINT	

REMOTE COMMANDER

PART NO.	DESCRIPTION
1-465-796-11	CONTROL UNIT, REMOTE (RM-816)
4-031-670-01	COVER, POCKET (FOR RM-816)

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